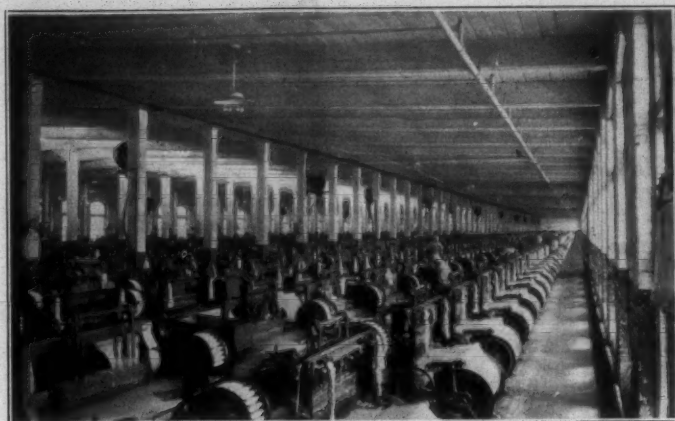


SOUTHERN TEXTILE BULLETIN

VOL. XXIV.

CHARLOTTE, N. C., THURSDAY, SEPTEMBER 7, 1922

NUMBER 2



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Maintaining 75 per cent Relative Humidity.*

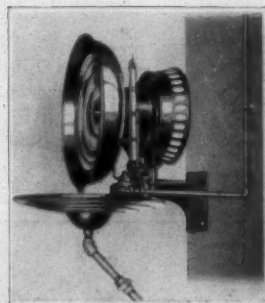
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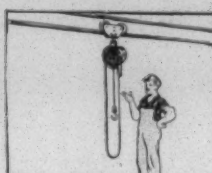
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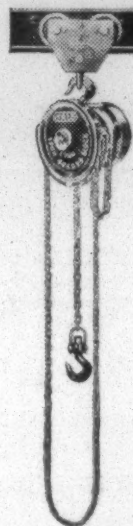
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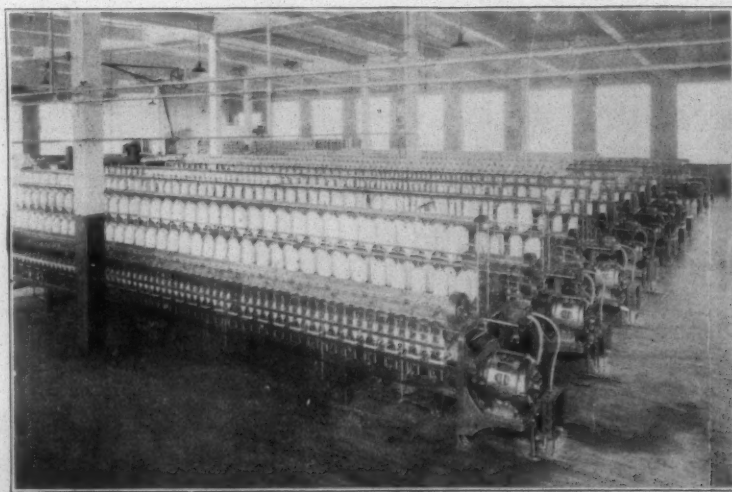
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HILLS TWO MILES SOUTH OF CHATTANOOGA, TENN.
ROSSVILLE, GEORGIA
July 22, 1922.

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Gentlemen:

Replying to your inquiry as to why we trademark our goods.

We feel that we make a superior product, so much so that when a customer wears ARROWHEAD (or WUNDERHOSE), they will wish to call for these same goods again and that the trademark name will catch their attention and possibly be retained in their memory so that they will be able to call for our merchandise from their dealer.

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By: *[Signature]* President.

GA-MBL

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These are the three reasons why the Richmond Hosiery Mills trademark every piece of hosiery they make. These are the reasons why every manufacturer who believes in his product should identify it with his trademark.

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SOUTHERN TEXTILE BULLETIN

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VOL. XXIV.

CHARLOTTE, N. C., THURSDAY, SEPTEMBER 7, 1922

NUMBER 2

Action of Cards Upon the Fibres

By H. D. Martin.

The cotton carding machine is one of the most wonderful and interesting machines in a mill. It has more working surfaces and more working points than any other cotton manufacturing machine. It has the most delicate arrangement of parts, requires more care, and is set much closer between working points than any other machine. There is no machine through which the cotton fibres pass so many different systems of working surfaces, or are acted upon by so many working points as is the cotton carding machine. It is really a combination of processes, compounded in the single machine. From the time that the cotton stock is fed into the machine between the feed roll and the dish feed plate, until the stock emerges from the machine as an almost perfectly cleaned, attractive sliver, the stock will have passed through more channels, between more working surfaces, and between more working points than it does through any other machine in the mill. Following the cotton stock through the card from the time the lap sheet is fed into the card until it comes out as carded sliver, we find that its passage through the card is as follows:

1. Between the dish feed and the lick-in.
2. Between the lick-in and the mote knives.
3. Between the lick-in and the screen underneath.
4. Between the lick-in and the cylinder.
5. Between the cylinder and the back-plate.
6. Between the cylinder and the top flats.
7. Between the cylinder and the stripper plate.
8. Between the cylinder and the front plate.
9. Between the cylinder and the doffer.
10. Between the cylinder and the cylinder screen.
11. Between the doffer and the doffer comb.

From the above, it can be seen that the stock passes through at least eleven different systems of working surfaces before it emerges as a finished sliver. As the stock is swept beneath the lick-in and continues its journey through the system of working surfaces of the card, there are upwards of sixty working

edges or surfaces with which the stock must come in contact at each revolution of the cylinder. As the cylinder revolves 165 revolutions per minute, the stock passes these sixty different working edges 165 times per minute. But this is not all—as the draft of the card may be one hundred, the stock is worked and reworked by the working edges, the total amount of 100x165, which equals 16,500 times, and there are 60 working edges; the stock comes into contact with a total of (16,500x60) 990,000 times per minute. If the card is producing 1-7 pound of sliver per minute, or 1000 grains of stock, each grain of stock stands a chance of being worked upon 990 times before passing out as carded sliver.

We will now take up the relation of the wire points to the cotton fibres. On each card there will be wires as follows: If the cylinder is 50 3-4 inches in diameter outside of the wire points, and if it is 40 inches wide and covered with clothing made up of 110s wire, English standard gauge (or 34s American standard counts) we will have 50 3-4 in. x 40 in., equals 44 309-1000 square feet of carding surface. As clothing of No. 110s wire has 79,200 wire points per square foot, there will be (44.306 x 79,200) equals 3,509,035 wire points. If the doffer is 27 inches in diameter and 40 inches wide, there will be very close to 23 610-1000 square feet of doffer clothing surface. If the doffer is clothed with No. 120s wire at 86,400 wire points per square foot, there will be 2,039,904 wire points altogether on the working surface of the doffer. If the top flats which are in contact with the cylinder number 43 and clothes 7-8 in. wide x 40 in. long, there will be 10 450-1000 square feet of top flats always in contact with the cylinder. If they are clothed with 120s wire there will be 902,880 wire points on the clothing of the revolving top flats.

Lastly, if the lick-in is 9 1-4 in. in diameter over the teeth, and 40-in long, there will be 8,070-1000 sq. feet of working surface for the lick-in. If the lick-in is clothed with garnet teeth strips, having four teeth to the inch, and laid 18 of an inch apart, there will be 4608 teeth per square foot, or 37,186 teeth on the lick-in.

Now, we have all of the wire points

with which the cotton fibres come into contact by the time it is combed off the doffer, namely:

- 1—Licker in.... 37,186 wire points
- 2—Cylinder 3,509,035 wire points
- 3—Top flats ... 902,880 wire points
- 4—Doffer 2,039,904 wire points
- 5— Total . . . 6,489,005 wire points

Now, we must figure out the relationship of the above points in their action upon the fibres. As these points do not all move at the same speed, we must take each system of wires by itself, in order to determine the action of same upon the fibres.

If the driving pulley on the cylinder shaft for the lick-in is 18 in. diameter and the driver on the lick-in shaft is 7 in. diameter, the lick-in will revolve 424 times per minute. As there are 37,186 wire points or saw teeth on the surface of the lick-in we must multiply the number of teeth by the speed per minute to find the total number of wire working points acting per minute upon the stock fed into the card during that time. This will give the grand total of 15,766,864 minute wire working points.

If there are 1000 grains of yarn workable fibres being fed into the card per minute, and if our cotton averages say 10,000,000 fibres to the lick-in, for if the lick-in moved of say 1,400,000 in round numbers of available yarn making fibres passing through the card all the time.

Now, as there are 15,766,864 wire working points per minute to act upon 1,400,000 fibres, there are at least eleven needle points to take care of each fibre which enters the card at this point. Although this may seem a large number of wires to take care of each fibre, it must be understood and remembered that these wires must also act to remove all waste matter from the cotton mixture in order to allow the desirable fibres to pass through and into the finished sliver.

Passing to the cylinder, we have a different proposition, which is a compound measure between the cylinder and the lick-in. The lick-in surface travels with the cylinder the same as also do the doffer and the top flats. There is a special reason for having all of the working surfaces around the cylinder of a card moving with the cylinder sur-

face and not having them directly opposed. This system enables the cylinder to pick off the fibres from the lick-in while they are on the run in the same general direction with the cylinder surface, without straining the fibres. This is especially true with reference to the lick-in, for if the lick-in moved in the opposite direction it would be directly opposed to the movement of the cylinder surface and the stock could not be so well taken up and laid on to the cylinder. The stock would receive harsh treatment and thus be injured. It is much the same way with the distribution and laying on of the stock on to the doffer.

As there are 3,509,035 wire points on the area of the cylinder, we must multiply them by the cylinder speed to ascertain the total minute wire working points which will pass the lick-in per minute, viz.: 3,509,035 x 165 equals 578,990,475. But during this time the movement of the cylinder wires which pass the lick-in must be discounted or offset by the surface speed of the lick-in, which moves in the same direction and displaces a corresponding amount of wire working points of the cylinder. Deducting the wire working points from the cylinder wire working points which amount to a total displacement of 293,832,000, leaves 285,158,475 points which remain to act upon the moving fibres then taken up by the cylinder. Dividing 285,158,475 by the moving mass of 1,400,000 fibres to the cylinder, we find that the cylinder has the abundant number of about 203 needle points to act in favor of each fibre. That is a number of wires must also help to comb out the undesirable fibres and protect the good ones.

Following the movement of the fibres through the card, we now come to the revolving top flats. On a card having 110 flats, there will be at the least 43 of them in contact with the cylinder all of the time. These flats usually move at the rate of one revolution per minute in the same direction as the cylinder surface. Therefore, we have still another compounded arrangement of working points. From the fact that the top flats move so slowly, they act in indirect opposition to the cylinder in proportion to the cylinder

speed less the actual speed of the top flats. Multiplying the total wires of the top flats, 902,880, by the speed of the cylinder which passes them at the rate of 165 R. P. M., we have a total of 165,497,805 top flat minutes wire working points plus those of the cylinder less the 902,880 top flat points which move per minute with and away from the cylinder, thus leaving 578,087,595 cylinder wires working towards and with the 165,497,805 of the top flats which are always in contact with the cylinder.

It is between these two systems that the chief work of the carding process is done. At this point there are over 418 top flat minute wire working points per fibre in constant readiness to receive the wastes. This waste is thrown into the top flat wire working points and left behind by the 412 cylinder wire working points per fibre which are racing past to deliver the desirable fibres to the doffer. While the work is not yet perfectly done, as much undesirable material is left behind as it is possible to eliminate with the present day improvements of cotton carding.

If the doffer revolves eight turns

per minute, it allows nearly twelve wire points per fibre to deliver the product by the comb from the doffer, to the calendar roll. But the very fact that the doffer operates so slowly in proportion to the cylinder, it is also indirectly opposed to the movement of the cylinder wires rushing past the doffer, and this is of invaluable importance in the final process of the carding surfaces. Between these two points, there are the 220 working points of the doffer per fibre and almost 400 cylinder wire working points per fibre to give the finishing touch to the fibres as they pass from the cylinder to the doffer.

The above results prove conclusively that for each fibre passing through the card there are, at the least, 1364 wire working points per fibre with which to perform the service of carding the stock. All of these working points are acting together upon the stock in order to perform the triple process of carding, viz., that of combing the fibres straight, freeing same from foreign matters, and then delivering it into a strong enough sliver to be properly worked in the succeeding process.

Form No. 1 shows the lay out of how to proceed to get all of the in-

formation regarding each make of cards in the mill on a specially printed form. This will amply show up the carding service for all of the working systems, eadges, and wire working points connected therewith. Some stocks require more carding of a lighter shade. The filling ends are similar as to shade and equal in number of picks to the number of ends in each of the stripes of the warp. The warp contains 3,000 ends of 32's cotton, drawn in a 16 reed with 4 ends to a dent. The listing is 28 ends same size yarn. Filling 60 picks to inch of same size yarn in the calculations but when the waste lots were used in the sizes varied. The weave requires eight harnesses and the same number of chain bars as shown in section c. These samples are given as suggestions as to the methods possible to employ to utilize odd and ends of lots of both warp and filling that can be found tucked away in almost any mill. An investigation of a storeroom, a basement or in fact any out-of-the-way place of many mills will bring to light some apparently worthless bobbins of yarn that can be woven into fabrics that will bring a profitable return.

and 844,000; Mississippi, 0.3 per cent and 156,000; Oklahoma, 43,000 and 2,797,000; California, none, and 210,000; Arizona, none and 105,000, and New Mexico, 2,000 and 44,000.

Comparisons by States.

Comparisons by States follow:

Change July 25 to August 25.

State	1922	1921	1922	1921	1921	1921
	Aug. 25	July 25	1922	1921	1921	aver.
Va.	68	63	80	-12	-2	
N. C.	65	62	78	-13	-4	
S. C.	46	50	60	-14	-5	
Ga.	44	41	54	-10	-6	
Fla.	60	59	65	-5	-7	
Ala.	60	53	70	-10	-6	
Miss.	60	57	74	-14	-7	
La.	60	45	70	-10	-9	
Texas ...	59	42	72	-13	-10	
Arkansas	63	63	81	-18	-6	
Tenn. ...	65	74	85	-20	-3	
Missouri	70	78	90	-20	-3	
Okla. ...	53	48	75	-22	-4	
Calif.	51	83	95	-44	-3	
Arizona .	87	85	85	+1	-1	
New Mex.	85	85	85	....	....	
U. S.	57	49.3	70.8	13.8	-7.7	

Below Average Estimate.

The Government's estimated condition is 57, is below the average of all private estimates so far for August, as shown by the following figures:

Miss M. K. Giles	62.0
Watkins Bureau	61.9
J. W. Jay & Co.	60.0
The Journal of Commerce.....	60.0
Memphis "Commercial Appeal" ..	59.9
Japan Trading Company	59.8
Hopkins, Dwight & Co.	59.8
Southern Products Co.	58.1
New Orleans "Times-Picayune" ..	58.0
Clement, Curtis & Co.	57.9
Fenner & Beane	57.5
Norman Mayer & Co.	57.0
A. Norden & Co.	56.7
American Cotton Association...	56.2
National Ginners' Association..	56.0

Slight Decrease in Cotton and Cloth Exports Shown.

Washington.—United States exports of raw cotton in July continued to fall off as compared with previous months, the total being 373,742 bales, valued at \$42,560,378. Compared with July a year ago, the actual number of bales were only 62 per cent while the actual value increased 117 per cent, which indicates the rising value of the raw material. With shipments of raw cotton for the seven months ending July slightly under those for the corresponding year ago, actual values increased more than 25 per cent.

While the upward trend in cotton cloth exports was not continued in July, totals were nevertheless very satisfactory as compared with July, 1921, in quantity, the increase was the increase in value was 52 per cent again indicating rising values. The gain in cotton cloth exports compared with July a year ago was recorded in every classification, very satisfactory gains being noted in ducks, bleached, printed and yarn dyed cloths. For the seven months ending July, 1922, the total value of cotton cloths exported was 20 per cent greater than the corresponding period a year ago and the total quantity 26 per cent greater.

CARDING MACHINE SERVICE

DATE

Mill No. 5
Rover No. 2
Section No. 1
Card maker
Card width.....40"
Top flats 110
Stock carded 1 1/2"
Date

Name of Part	Part in Contact	Giameter Over Wire	Area in Square Feet	Wire Number	Date Clothed	Wire Points Per Sq. Ft.	Total Wire Points on Entire Surface	Revolutions Per Minute	Total Minute Wire Working Points	Product Per Minute	Fibres Per 1,000 Grains	Minute Wire Working Points Per Fibre
Licker-in	Dish feed	9 1/4	8 70/000	448	4,608	37,786	424		15,766,864	1000	1,400,000	11
Cylinder	Licker-in	50 3/4	44 306/1000	110	79,200	3,509,035	165		285,158,475	1000	1,400,000	203
Cylinder	Top flats								578,163,635	1000	1,400,000	412
Top flats	Cylinder	11 971/1000	10 450/1000	120	86,400	902,880	1/60		165,497,805	1000	1,400,000	118
Cylinder	Doffer								564,141,179	1000	1,400,000	400
Doffer	Cylinder	27"	23 610/1000	120	86,400	2,039,904	8		320,264,928	1000	1,400,000	220
Doffer	Comb											
Totals			97 971/1000	86 436/1000		256,608	6,489,005	597 1/60	1,928,992,886	1000	1,400,000	1364

Cotton Condition is 57%.

Washington, Sept. 1.—A reduction of 874,000 bales in the prospective cotton crop of this year since the forecast a month ago was shown in the Department of Agriculture's September cotton issued today forecasting the total crop at 10,575,000 bales. The condition of the crop declined 13.8 points during August, as compared with an average decline of 7.7 points in the previous ten years, the condition having been 57.0 per cent of a normal on August 25, compared with 70.8 on July 25.

In a special report, in response to a Senate resolution, the Department of Agriculture announced the acreage of cotton abandoned between June 25 and August 25 amounted to 367,000 acres, or 4.4 per cent of the area in cultivation June 25, leaving 34,485,000 acres in cultivation on August 25.

"As the condition figure of the regular September 1 cotton report is affected by the acreage abandonment," said the department's statement, "no additional deduction for the abandonment here shown need

be made from the present forecast of 10,575,000 bales based upon the August 25 condition figure and the acreage in cultivation on June 25."

Forecast by States.

The condition of the crop on August 25 and the forecast of production by States follow:

Virginia, condition 68; forecast 23,000 bales.

North Carolina, condition 65; forecast 750,000 bales.

South Carolina, condition 46; forecast 687,000 bales.

Georgia, condition 44; forecast 968,000 bales.

Florida, condition 60; forecast 24,000 bales.

Alabama, condition, 60; forecast 826,000 bales.

Mississippi, condition 60; forecast 1,003,000 bales.

Louisiana, condition 60; forecast 414,000 bales.

Texas, condition 69; forecast 3,644,000 bales.

Arkansas, condition 63; forecast 969,000 bales.

Tennessee, condition, 65; forecast 278,000 bales.

Missouri, condition 70; forecast 76,000 bales.

Oklahoma, condition 53; forecast 786,000 bales.

California, condition 91; forecast 130,000.

Arizona, condition 87; forecast 55,000 bales.

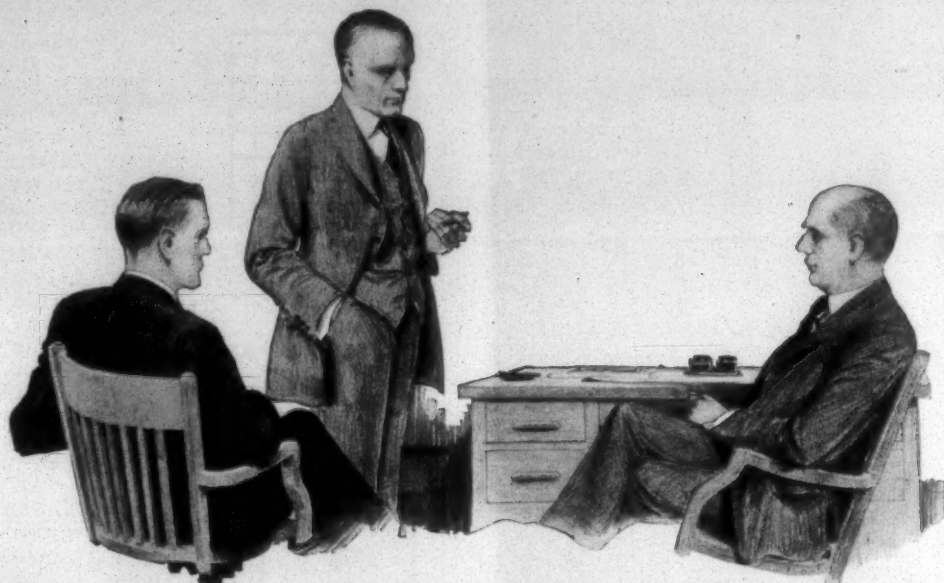
New Mexico, condition, 85; forecast 21,000 bales.

California forecast includes 79,000 bales from Lower California which are not included in United States total.

Acreage Abandoned.

The cotton acreage abandoned between June 25 and August 25 and the acreage remaining in cultivation August 25, was announced as follows:

Virginia, 2,000 abandoned 49,000 in cultivation; North Carolina, 14,000 and 1,587,000; South Carolina, 33,000 and 2,197,000; Georgia, 124,000 and 4,005,000; Florida, 4,000 and 118,000; Alabama, 12,000 and 2,983,000; Mississippi, 22,000 and 3,178,000; Louisiana, 24,000 and 1,287,000; Texas, 62,000 and 12,250,000; Arkansas, 20,000 and 2,833,000; Tennessee, 5,000



"There's a Way Out of this Difficulty, Mr. Brown"

Anderson, salesman for Schuyler Mills, manufacturers of white goods, was speaking to his manager. The difficulty was, that in spite of every effort, sales were at such a low point that it had become a question of the advisability of closing down the Mill entirely. When Anderson saw that he had Mr. Brown's attention, he continued, "I was talking with one of the converters in New York last week and he told me that the Kenesaw Mills are making colored goods now and I believe that's the thing for us to do."

"Whoa, there!" interrupted Mr. Brown, smiling indulgently, "I don't necessarily expect a salesman to know it, but just the same it's a fact that if we went into the colored goods business, we'd have to install beamers and hire skilled operators to run them. The Kenesaw Mills are welcome to the business if they have gone to that expense. I wouldn't think of it in these uncertain times."

"Just a minute please, Mr. Brown," answered Anderson. "I was about to explain that the Kenesaw Mills are making colored goods without having spent a single dollar for new equipment or additional labor. You see, they have their dyeing done by the Franklin Process. They ship their yarn to the Franklin Process Company on spinning bobbins, cones or parallel tubes, the Franklin Process dyes it and returns it to the Mills on parallel tubes all ready for use in the V creel for warping."

"By Jove! that's so," exclaimed Mr. Brown, "I'd forgotten that the Franklin people dyed yarn in package form. That makes it just as easy for us to make colored goods as to make white goods. Anderson, I apologize for laughing at you."

Anderson accepted the apology with a smile and then continued eagerly, "This same converter also said that he hadn't seen anything to equal Franklin dyed goods for brilliancy, solidity and fastness of color, and that he insisted on Franklin colors for all his goods. He showed me a Franklin color card too, and after seeing that card I could readily understand his enthusiasm. And all the other converters that I called upon seemed to feel the same way about Franklin colors."

"If we use this Franklin Process, Mr. Brown, I can't see any reason why we shouldn't get into the colored goods market with a bang, because the converters are all strong for it."

"All right, Anderson," said Mr. Brown, "You've started this thing and I'm going to let you see it through. Get the nearest office of the Franklin Process Company on the wire right away and ask them to send immediately their latest color card with prices and all the information that we should have in order to do business with them."

The Franklin Process Company solicits your inquiries also.



FRANKLIN PROCESS CO.
Philadelphia PROVIDENCE Manchester, Eng.
New York Office, 72 Leonard Street
SOUTHERN FRANKLIN PROCESS COMPANY
Greenville, S. C.



Overseer to Superintendent

Written exclusively for Southern Textile Bulletin by "Old Fixer", a man who has had long & varied experience in this work

Working Off Odd Lots of Yarn.

There are always odd lots of warp and filling yarns to be worked off as a result of miscalculations, change of patterns, rejection or cancellations of orders, errors on the part of the carding or spinning departments and for other reasons. These odd lots of yarn often accumulate to the disadvantage of the mill as the yarn will get mouldy in a damp place or dry and hard in other places or infested by mice and insects. Filling yarn remaining long in out of the way boxes often get disturbed on the bobbins so that when put in the looms breakage occurs. Some superintendents are very careful about keeping down the odd lots while others let this material accumulate until room has to be found for it. In a certain mill visited recently several barrels and gunny bags were noticed in an attic storeroom containing yarn which had been left over from the warping and weaving rooms all of which was gradually going to waste. A superintendent who allows waste of stock from this source is not attending to business. There are always opportunities for utilizing odd and ends of both warp and filling, yarns before any great amount collects. Mills running on fancy cotton or woolen dress goods are more liable to have these odd lots collect than mills manufacturing plain goods. The small lots left over from one order in a plain goods mill can be used in the next order. But mills running on fancy fabrics use such a variety of yarn that this cannot always be done.

If the excess yarn is large enough some new patterns may be designed with the object of working off the odd lots. If only a limited amount of a certain shade of yarn is available it can be used with profit in weaving checks. The sample of dress goods shown in Figure 1 was intended to be in stripe formation. It was laid out with 1,392 ends single 20's cotton for the warp. Reed number 12 with 4 ends in a split. Filling 52 picks with 28's cotton. Listing 14 ends 20's cotton drawn same as the body of the warp. The colors in the warp were made up of 20 ends of white and 20 ends of black with a thread of white running through the black stripe and a thread of black through the white stripe. The colors, of course, were not exactly black and white, but these shades are used as an illustration. There happened to be a quantity of a light colored yarn of filling and a quantity of a dark colored yarn of filling on hand in the mill considered as waste. That is, these lots were left over from certain orders which had been completed and resulted from excess figuring of someone. These odd lots were put into the striped warp as filling resulting in the check as shown in Figure 1. The filling colors did not precisely correspond with the warp colors, but the shades were near enough alike to harmonize. The

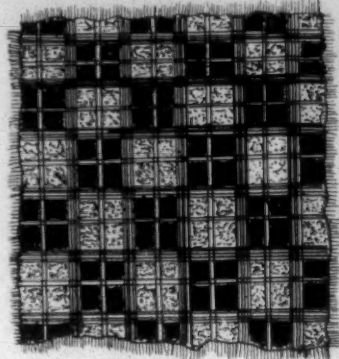


Fig 1

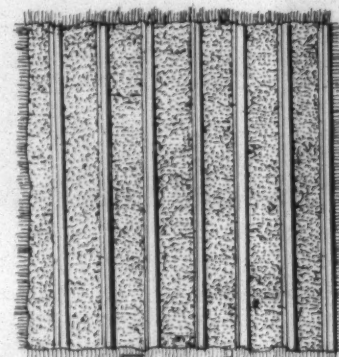


Fig 2

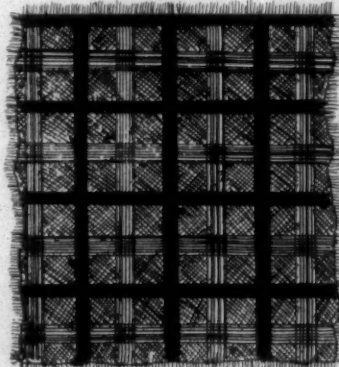
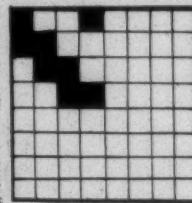
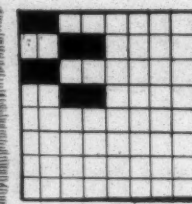


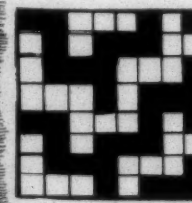
Fig 3



A



B



C

weave used for the fabric was a twill such as is shown in section A. Using Odd Ends For Hairline Effects. If the accumulated bobbins of yarn happen to be warp and if the yarn is very twisted, it cannot be worked off as filling without danger of kinking. The hard twisted yarn is also liable to make harder and stiffer goods than desired. The yarn for warps is also wound larger on the bobbins and the cops might not fit in the shuttles owing to size. Therefore some superintendents manager to utilize odds and ends of warp bobbins for the defining lines in hairline fabrics of the order shown in figure 2. This structure is composed of 18 threads of a light shade for the wide stripe while the narrow hairlines are threads of a darker color. The entire warp is made of 4,608 ends 8 run cotton and woolen yarn mixed, with 72 picks of the filling of same run of yarn as the

one-half as soon as cut from the bobbins as it at once becomes hard waste.

Double Plain Stripe Effects.

In Figure 3 is a double plain stripe pattern which has been altered to a check design by the admittance of filling threads to correspond with the warp. This change was made for the purpose of using some odd lots of filling that were on hand and depreciating with time and exposure to attacks of pests that infest many textile mills and to climatic conditions.

This design is made up of three shades in the warp and the same in the filling. The warp is 10 ends of the body of the goods, 6 ends of the solid dark stripe and 6 ends of strip than others. Some cards give better service than others. With the information which can be carefully worked out, as planned, regarding each make of cards the work can be put through where the best carding service is wanted and available. In these days of close competition, it is of the highest importance to know the carding system thoroughly well. And it cannot be thoroughly well understood without fully analyzing the system as set forth in this paper.

The figures in this paper are built upon the assumption that the card clothing is in good condition. If the clothing is old a proportionate percentage of allowance must be made to compensate for the imperfections in the card clothing. It would not be amiss to allow a one per cent or more reduction of the wire working points for each year that the card clothing has been in full operation.

A law has been passed by the Brazil authorizing the State Government of Pernambuco to organize a commission composed of farmers, manufacturers, and the district chief of the Cotton Department of the Ministry of Agriculture to assist the State Government in the organization of an official cotton protection service, says Consul Cameron, Brazil.

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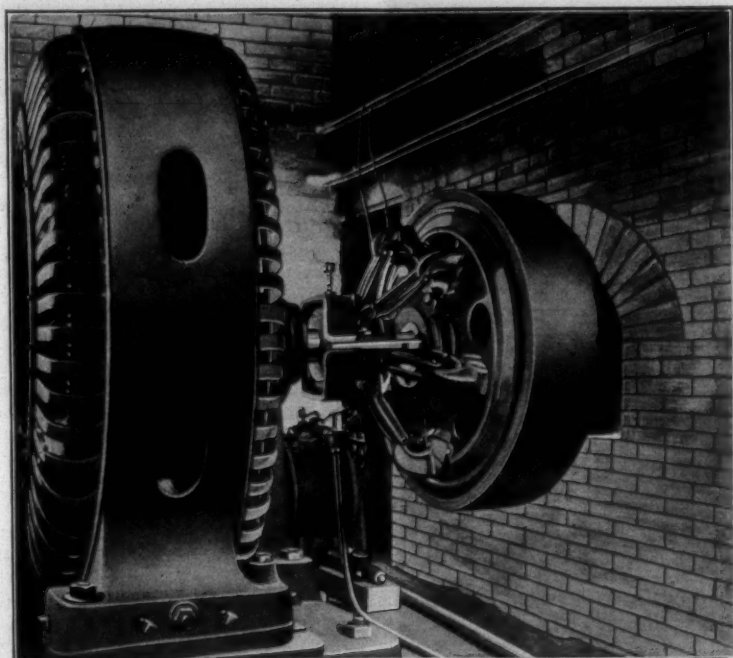
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Influence of Heat on Yarn

It is necessary in many manufacturing processes to submit textile fabrics to high temperatures; this is especially so in the case of the rubber industry, particularly when the fabric is to form part of a heat vulcanized rubber commodity. The effect of heat has also a very important bearing on finishing processes, such as singeing and calendering.

It is the intention in this paper to put on record further experimental data dealing with the effect of heat as it concerns the manufacturer.

Cotton Yarns.

The yarn used in these experiments was a good quality of Sakelardes cotton, having an average staple of 1.5 in.

The tests previous to heating were made on yarn humidified at a relative humidity of 75 per cent (saturation 100 per cent) and at a temperature of 66 deg. Fah.

The first series of tests were made at varying temperatures, but the time remaining constant, namely, one hour.

Table 1.

Temperature.	Time	Single Thr'd in grammes	Elongation per cent.
23's yarn before heating.....	1 hour	405	6.5
80 deg. Cen. (176 deg. Fah.).....	Do	378	6.5
100 deg. Cen. (212 deg. Fah.).....	Do	377	6.4
120 deg. Cen. (248 deg. Fah.).....	Do	363	6.3
140 deg. Cen. (284 deg. Fah.).....	Do	317	6.1
160 deg. Cen. (320 deg. Fah.).....	Do	263	5.1

The following are abstracts from published works of previous investigators. Bowman ("The Structure of the Cotton Fibre," p. 137) states that "pure cellulose, when heated, loses water up to a certain point, as it is very hygroscopic, but at 315 deg. Fah. (168 deg. Cen.) commences to turn brown, and then, as the heat is raised, it is completely carbonized." Kuhn ("Die Baumwolle," p. 131) states "that a portion of the moisture in cotton must be regarded as a constituent part of the fibre." "The water of constitution," he states, "can be expelled at over 105 deg. Cen. and the fibre then becomes harsh and brittle and loses its elasticity." Thompson has pointed out that the increase in elasticity of moist yarn over dry yarn is about 25 per cent, while the increase in strength is about 10 per cent.

Matthews ("Textile Fibres," p. 282) states that "cotton is capable of standing rather high temperatures without decomposition or alteration; though it appears that when cotton is subjected to a temperature of 160 deg. Cen., whether moist or dry heat, a dehydration of the cellulose takes place, accompanied by a structural disintegration of the fibre."

It is presumed that the term "elasticity" referred to in the foregoing abstracts means "elongation at break."

Methods of Investigation.

The cotton yarn was heated in a closed metal chamber containing air and having a volume of 524 cubic centimetres (31.8 cubic inches approximately). Each heating experiment was conducted on two leas of 23's yarn, which was placed in the vessel and securely bolted so that the chamber had steam tight joints. The various temperatures were obtained by regulated high-pressure steam into which the closed vessel containing the yarn was placed.

After heating the yarn at a predetermined temperature for a definite time, single-thread strength and elongation tests were carried out. To ensure that the probable errors were small, 50 tests of each sample were made.

The tests results obtained are tabulated in Table 1.

The hygroscopic moisture lost by the yarn at 80 deg. Cen. reduces the strength appreciably; that, however, is not permanent, and a sample so heated and rehumidified regained its former moisture content and strength. We cannot say after one hour's heating that there is a permanent strength reduction before a temperature of 140 deg. Cen. to 160 deg. Cen.; the figures shown relating to 80 deg. Cen., 100 deg. Cen. and 120 deg. Cen. may be regarded as identical, the slight differences between them are covered by the normal variations in the yarn and experimental errors of test methods.

There is a distinct reduction both in the strength and elongation at a temperature of 160 deg. Cen. At this temperature the cotton is quite brown, and at 140 deg. Cen. it is tinged a yellowish brown.

Table 1 gives test results on yarns heated at a varying temperature but a constant time. The question, however, arises, as to how cotton is affected by time. For this purpose a temperature was chosen between the two examples in Table 1, where the greatest change took place; thus in Table 2, we append results obtained from tests made at a constant temperature of 147 deg. Cen. but for varying intervals of time. Confirmatory tests were made at 153 deg. Cen.; these are also tabulated in the elongation is, however, reduced from 6.5 to 3.1 per cent.

The confirmatory tests at 153 deg. Cen. show a strength reduction after two hours, and after two-and-a-half hours there is an appreciable strength and elongation loss.

These tests certainly show that in addition to the change of temperature, there is also a time factor governing the strength reduction.

Dr. Bowman states "that pure cellulose commences to turn brown at 168 deg. Cen."; in these experiments it was found, by the method of heating adopted, that the shade changes commenced somewhere between 120 deg. Cen. and 140 deg. Cen. after heating for one hour; the shade also changed to a yellowish-brown tone

Table 2.

Temperature.	Time.	Single Thr'd Bk. in grammes	Elongation per cent.
Before heating.....	1 hour	405	6.5
147 deg. Cen. (296 deg. Fah.).....	1 1/2 hours.	317	5.1
	2 hours	332	5.0
	2 1/2 hours	317	4.3
	3 hours	189	3.1
153 deg. Cen. (308 deg. Fah.).....	1/2 hour	311	5.1
	1 hour	334	5.0
	1 1/2 hours	334	4.7
	2 hours	288	4.9
	2 1/2 hours	349	4.0
	3 hours	215	3.5

after three hours' heating at 150 deg. Cen. The results certainly differ from those quoted in Dr. Bowman's work; this led to an investigation of the reason for the big variation. It was found by heating the same quality of cotton in an open oven that the strength reduction and change of shade was quite different from yarn heated in the way indicated in this investigation.

On heating the yarn at 190 deg. Cen. for one hour in an open electric oven, the color was very similar to that heated at 140 deg. Cen. for one hour in a closed vessel having a limited volume.

Both Kuhn and Thompson state that cotton when heated loses its elasticity (probably meant to infer "elongation"). Tables 1 and 2 both show that there is a reduction in elongation on heating at high temperatures, but there is also a decrease in the yarn strength. If the yarn has not the same strength, and the stress-strain curves of different yarns coincide, then there will be an obvious reduction in stretch; this, however, does not necessarily mean that there have been changes in the stretching properties of the yarn, but only in the strength quality.

The stress-strain curves of the yarn heated for one hour at 120 deg. Cen. and 160 deg. Cen. respectively had identical curves, the yarn heated at the latter temperature was the weaker, consequently that heated at 120 deg. Cen. had more stretch, but the rate of stretch exactly coincided in the two yarns.

Tables 1 and 2 are results of experiments made in a closed vessel, where the heat would be moist owing to the moisture of hydration being contained in the chamber. In the test previously referred to where the yarn was heated to 190 deg. Cen. for one hour, the average single-thread was 318 grammes and the elongation 5.5 per cent.

This is the result of a dry heat, and it appears that the effect is not so great as a moist heat at 160 deg. Cen.

Conclusions.

The results obtained and the methods employed in these experiments enable the following conclusions to be drawn:

(a) That after a period of one

hour, cotton heated in a moist heat at 140 deg. Cen. is reduced in strength.

(b) That yarn changes its colour when heated for one hour at a temperature between 120 deg. Cen. and 140 deg. Cen.

(c) That in addition to the temperature factor, which reduces cotton strength, there is also a time factor.

(d) Cotton heated in a small vessel containing the moisture of hydration is weakened more than that heated in the dry heat of an oven.

—Textile Recorder of Manchester, England.

English Mill Men Pessimistic.

Washington.—British cotton interests are profoundly pessimistic over future prospects, while French manifest a buoyancy based upon the fact that their mills are fairly well occupied and that prices in general have not declined in sympathy with cotton or with other markets. So declares a dispatch received at the textile division of the Department of Commerce from its chief, Edward T. Pickard, who is touring Europe in the interest of the department's world survey of textile markets.

The cablegram declares that the French manufacturers are looking forward to a continuance of the present activity throughout the balance of 1922, while the British do not appear very hopeful. The cable reads:

"In the spinning sections of Great Britain mills are in a somewhat worse position than the weaving plants, although British trade returns for July showing cotton goods exports to be the highest for two and a half years. After all, the trade of that month is but a reflection of the stimulated activity resulting from orders received in April and May, and a continuance or an increase of July is not looked for."

"Although the exports to India from the United Kingdom recently took a more hopeful turn, the present position is not so favorable and British manufacturers appear apprehensive as to their future trade with that country."

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Knit Goods Section

July Underwear Production.

Actual production of underwear for July was 34,207 dozens; figures submitted by 43 mills to the Knit Goods Manufacturers of America show, being 67.1 percent of normal production of 587,344 dozens. This percentage is the lowest reported since August, 1921, when production was 292,066 dozens, or 51 per cent of normal. June production in percentage was 80.5 per cent of normal, with 38 mills reporting. For the period covered in the appended charts production approached nearest to normal in March, 1922, with 37 mills reporting a production of 86.4 per cent of normal.

Unfilled orders in July amounted to 1,417,886 dozens, while new orders rose to 87.2 per cent of normal as compared with 77.9 per cent in June and 90.5 per cent in May. Shipments were 78.9 per cent of normal in July as compared with 66.5 per cent in June and 55.6 per cent in May.

Knitters Have Small Coal Supply.

Washington.—A survey of coal stocks in the knit goods industry as of August 1, compiled by special assistants of Secretary of Commerce Hoover, with the cooperation of the knit goods manufacturers of America, shows that on that date the industry had an eight-week supply of coal on hand.

A total of 179 plants are included in the report, of which 39 use fuel other than coal. The total stocks of coal were 36,043 tons, an average weekly consumption of 4,434 1-2 tons.

A summary of the analysis follows:

The situation, as reported by approximately 85 per cent of the number of plants manufacturing knit goods in the United States, with reference to stocks of coal on hand as of August 1, 1922: It will be noted that the consumption of coal in these plants is comparatively small, this being due to the fact that the majority of them located in the East use electric power in their mills and consume coal principally for the purpose of heating and pressing. The consumption, however, shown on the statement will be materially increased as colder weather begins, a large number of the plants reporting that in the winter months they consume twice the amount shown in the statement as used at the present time."

The summary shows that of the 179 plants reporting, 39, or over 20 per cent, use oil instead of coal for fuel, or else use electricity purchased from central power stations.

It was pointed out by fuel experts of the Department of Commerce that a large proportion of the knit goods industry uses anthracite coal, and the continued strike in that field will probably cause these mills to switch to bituminous.

Roy Cheney, representing the association, in presenting these figures to Secretary Hoover and to Henry

B. Spencer, Federal fuel distributor, urged the the Government take special steps to insure the knit goods industry continued operation and to prevent several important mills from stopping operations.

The average number of weeks supply, as of August 1, was reported by States as follows:

New Hampshire, 8; Vermont, 10; Massachusetts, 15; Rhode Island, 6; Connecticut, 8; New York, 7; Pennsylvania, 6; New Jersey, 8; Virginia, 2; North Carolina, 7; South Carolina, 10; Georgia, 7; Alabama, 4; Tennessee, 5; Ohio 7 1-2; Michigan, 6; Indiana, 5 1-2; Illinois, 8; Wisconsin, 8; Minnesota, 4; Utah, 4.

If no supplies have been received during the month of August, mills in Virginia, Alabama, Minnesota and Utah will have consumed all available stocks of coal, according to the report.

Foreign Hosiery Trade is Gaining.

While the domestic hosiery situation remains rather quiet, reports current in the market indicate that there is a little more life to the export field. At the same time it is pointed out by leading factors that the broadening of export inquiries does not necessarily indicate any extraordinary activity. In the phrase of one important export factor: "There is a better feeling in the market and that will help a good deal."

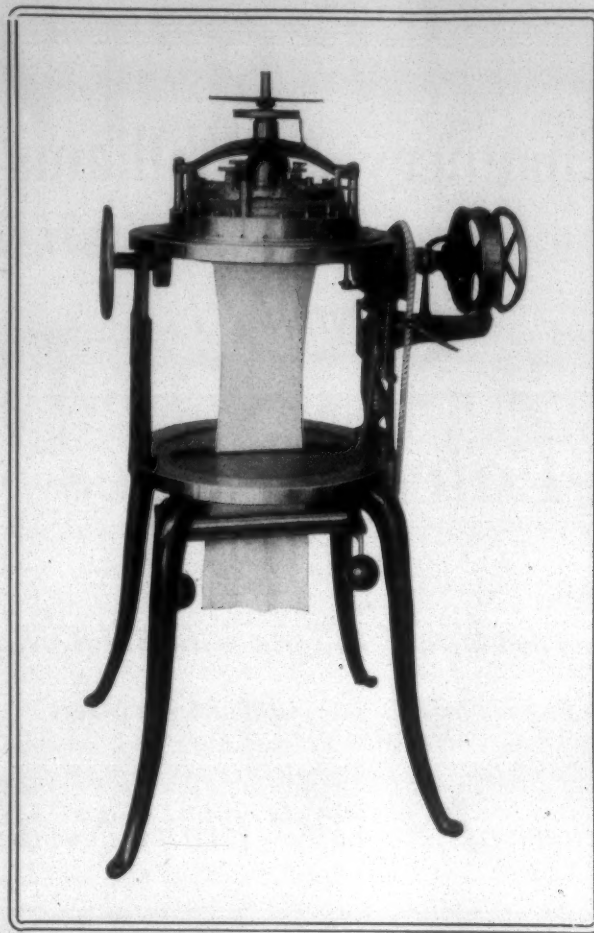
The inquiry from foreign sources is mostly from South America and England. The call, according to reports, is largely for the cotton goods in good volume, and despite the firmness in prices foreign buyers are keen about merchandise. Quite a little business is being done in fiber goods.

In the domestic field the cotton lines are showing consistent improvement. In fact, this has been one of the encouraging features of the market. The heather goods are displaying signs of a slowing up due to the fear of retailers that longer skirts will result in a curtailment in inquiry for this class of hose. Some sellers believe, however, that the heathers will not be as weak as is generally expected. It is said in other quarters that there will be a better demand for the cheaper silk lines in preference to the heather.

Fall Underwear Active.

There were no significant developments in the underwear market. There have been quite a few orders received for fall lines from retailers who, it seems, are not loaded up with merchandise. This movement of merchandise, while encouraging, is still on a conservative basis. Manufacturers say that merchandise in this division is being sold on a basis which makes replacement impossible at current figures. The probability is that advances may be made in the not distant future.

As for spring business, there is practically nothing to speak of, the



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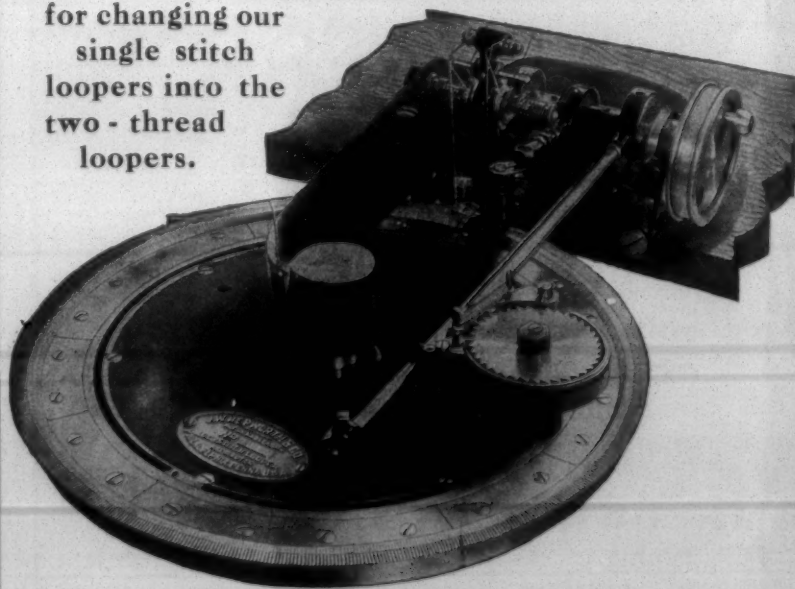
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feeling in the trade being that there will be no activity until after Labor Day. Advances in prices on some of the spring lines have naturally had the effect of influencing the attitude of potential buyers.

Knit Goods Situation.

Philadelphia, Pa.—The market for knit goods was firmer during the closing week of the month, although there was no material change in prices. The difficulties in the way of coal supplies, and the general effect of the coal and rail strikes combined to keep trading on a small basis, although there is hope in the trade that September will bring more normal conditions and a steadier demand for knit goods.

Production has already been considerably slackened in some districts, both hosiery and underwear plants running in some section on restricted schedules. Sales of full silk hosiery were made at rather low prices by some jobbers who are uncertain as to whether the fall demand will be for silk or wool hosiery. The inquiry, as a whole, for goods for the first quarter of 1923, was considerably better during the week.

One of the larger hosiery mills selling through a powerful New York commission house had calls for prices for deliveries early next year. The selling house left contemplating buyers to exercise their own judgment as to the expediency of placing their orders at this time, refusing to assume the responsibility for advising them. The house stated, however, that it would accept business for spring, but for only gilt edge account, and that orders would have to bear the signature of buyers' principals and contain a stipulation that under no circumstances would cancellations be accepted. Some buyers did not take kindly to the provisions exacted by sellers, but a few placed orders for moderate quantities of cotton hosiery. There was no doubt in the minds of sellers that buyers were influenced by the continued strength of cotton and the prospect of an early settlement of the strike controversies.

Buyers in the main still are resisting prices commensurate with the highest cost of yarn; admitting however, that mills either must operate on uncomfortably low margins or effect radical reductions in their overhead, all of which, manufacturers insist, does not seem within the range of probability. The wage trend is clearly upward, it is held by the executives of several large selling houses representing some of the leading mills, and in support of this view is instanced the recent adjustments in Lawrence, Mass., and, in one or more instances, the restoration of cut which had gone into effect and been accepted by employees.

"We believe the new wage rate will be fixed somewhere between the former schedule and the proposed 20 per cent cut," said a person speaking for a representative New England hosiery mill. "We can quite emphatically state," he says, "that there will be no such thing as wage reductions in hosiery and underwear mills this year. The almost universal demonstration of labor against reductions,"

he continues, "indicates that for the time being downward revisions of pay scales will not be in order."

The demand for cotton, it is pointed out, is an international matter, and a difference of a few cents a pound in the fiber will not lessen its consumption by mills in England and Central Europe. Cotton on the other side, it is held, will be more affected by exchanges and trade conditions, and in this country, the belief prevails, there is developing a situation which will serve to at least steady cotton, if not cause holders to move price up. In the circumstances the stand taken by the president of the wholesale dry goods company in the Central West who counseled ultra-cautious buying because, he stated, prices for cotton goods made in 1923 will be lower than present quotations, seem to have spent its force.

"Our criticism of the jobbers," said the head of a large southern mill who spent a few days in the North, "is not because of his persistency to buy on a retail basis, but of his determination that manufacturers shall sell at prices which actually yield no return. I hold that an article is worth to the seller the best price he can for it, and to the buyer as little as it can be bought for. But there should be a limit to the minimum that a buyer will pay as there is to the maximum of what a seller may ask. Of course I cannot blame buyers for getting their goods from mills that are selling at cost and under, but they are being driven to this. Perhaps they made so much money that now they can engage in philanthropic work. I would not feel so sore about this matter of price if the consumer were getting the benefit of mills' sacrifices."

The attitude of labor indicated in the acceptance of a proposal made last week by a hosiery mill manager to the operatives. They had taken a wage reduction of 15 per cent, but when they found the mill was running five days a week they assumed it was having a considerable business and insisted on a restoration of the cut. The management proposed that they either work five days at the reduction or two at the former schedule. After a conference they decided to take the full rate and work two days. Their three days' idleness is costing them \$7.90 a week.

The mill is operating on the basis of one-third of capacity and is not selling its production, because, distributors say, its price for staple is too high. The management shows that the selling price is slightly under cost of manufacture and sales. Labor, it is shown in this instance, would rather have a rate fixed by labor, even at less money, than a lower rate fixed by the employer but yielding a higher return per week.

As instancing the low prices which some jobbers offer, a buyer last week named 65 cents a dozen as the maximum he would pay for 84 needle half hose weighing 1 1/2 pounds to the dozen, and consuming a little over that weight of cotton yarn, costing the manufacturer about 50 cents if he had it in stock.

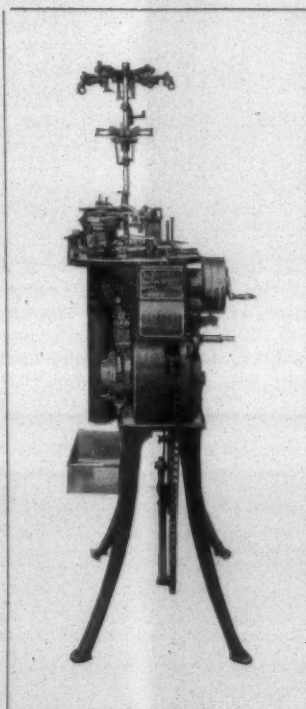
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Increase in Yarn Exports

(Richard A. May, Acting Chief, Textile Division, Dept. of Commerce.)

The extension of cotton manufacturing into numerous foreign countries where industries are yet in the infant stages, while perhaps eventually tending to restrict American exports of cotton cloths, nevertheless is having the opposite effect so far as cotton yarns are concerned. This is substantiated not only by the United States export statistics but also by reference to British cotton cloth and yarn exports. For the first half of the current year foreign shipments of British cotton yarns, unlike cotton cloth exports, more than doubled, compared with a year ago, approximating the total quantity and attaining a value nearly twice that of the corresponding 1913 period. This increased trade can not be attributed to buying from one or two isolated markets alone but rather points to a growing yarn business in all countries.

World Pre-War Trade.

The world's pre-war foreign trade in cotton yarns, excluding thread, was close to 1,530,000,000 pounds, valued at \$360,000,000 a year. With imports of the smaller consuming countries omitted, 92 per cent of the 1913 cotton-yarn export tonnage from the 12 leading manufacturing

countries is accounted for in the manufacturing industries not included are Australia, Colombia, Mex-

World's 1913 Foreign Trade in Cotton Yarn.

Countries:	Imports		Exports	
	Pounds	Value	Pounds	Value
China	360,009,867	\$52,095,676	.....	.....
India	50,053,243	14,432,015	203,961,357	\$32,173,551
Japan	502,474	231,988	179,954,072	35,356,774
Dutch E. Indies	4,100,000	1,899,601	.....	.....
United Kingdom	11,568,620	2,726,077	210,099,000	73,028,113
Austria-Hungary	9,862,940	4,126,561	54,517,769	10,062,693
Belgium	9,181,627	3,431,531	17,240,263	4,401,233
France	6,018,998	5,992,432	16,846,450	4,551,734
Germany	72,622,000	27,328,000	27,673,000	7,438,000
Italy	1,284,510	727,319	24,008,976	5,067,631
Netherlands	84,781,851	19,922,919	13,075,238	2,689,983
Rumania	22,024,000	4,461,000	.....	.....
Russia	10,408,830	5,065,752	1,388,246	610,327
Switzerland	8,105,211	4,286,855	8,054,284	3,196,242
Sweden	2,879,291	1,048,923	.....	.....
Egypt	5,938,939	1,151,652	.....	.....
Persia	4,818,221	1,237,891	.....	.....
F. Indo-China	4,209,660	812,683	.....	.....
Canada	3,463,676	1,438,961	.....	.....
United States	6,436,613	3,824,455	* 3,000,000	745,913
Argentina	13,814,277	2,620,211	.....	.....
Brazil	3,396,222	1,103,685	.....	.....
Chile	2,859,721	1,183,661	.....	.....
Total	698,340,791	160,779,848	759,818,655	-179,322,194

* Estimated.

This table is submitted in the belief that it will serve as the best means whereby a perspective of the growing potentialities of foreign yarn markets may be gained. Countries with lately established cotton-

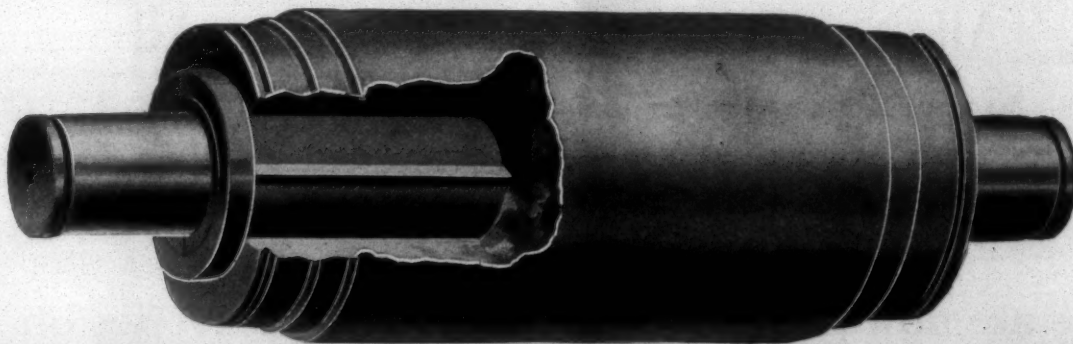
yarns in 1921 went to more than half a hundred separate markets, Argentina, Canada, Hongkong, and Chile being the leaders. The slight revival of foreign yarn orders following the 1920-21 postwar depression is evidenced in the following table, which gives the quantity and value of United States cotton yarn export for the calendar year 1913 and 1918 to 1921 and the fiscal year ending June 30, 1922:

United States Cotton Yarn Exports.		
Year	Pounds	Value
1913	* 3,000,000	\$ 745,913
1918	13,355,800	8,846,694
1919	20,699,124	14,488,636
1920	24,099,399	20,014,949
1921	14,294,175	5,679,079
1922†	15,116,643	5,760,094

† Estimated.

† Fiscal year ending June 30.

The Chinese cotton-yarn markets owe their supremacy principally to the large demand from native handloom weavers, which gives no indication of immediate decline. American cotton yarns in recent years have found their way into China mostly through Hongkong, from which market inquiry has been active of late. The knitting and weaving mills of Shanghai offer additional markets for counts supplementary to those supplied locally. With the growing momentum gain-



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ed by the Swadeshi cloth and the noncooperative movement in India other markets for yarns are opened. The Indian boycott, directed primarily against imported cotton cloths, certainly can not be carried so effectively against yarns, as witness the most recent trade returns. American yarn merchants might also pay particular attention to South American and other nearby markets where local spinning industries are inadequate to meet the broadening demand from domestic weavers.

Such large textile-manufacturing countries as Germany, the Netherlands, and Russia (essentially the present day Lodz district of Poland) in pre-war times imported considerably more cotton yarns than they exported. This tendency has proved even more outstanding recently in the case of the first two countries, while Poland, to the contrary, has not lately entered into the trade to any perceptible degree. These, as well as other Continental markets, it would therefore seem, demand the serious consideration of American cotton-yarn merchants.

Damage by Boll Weevil.

Washington, Sept. 3.—The boll weevil, destroyer of potential wealth in cotton, and bugaboo of the cotton grower, had a record year, and did itself proud in the fields of the south by preventing production of 6,277,000 bales of cotton, which, with the seed that would have been ginned, was worth \$610,341,000, based on farm prices of December 1, last.

A careful study of the damage to cotton by the boll weevil and other causes has just been concluded by the department of agriculture, whose reports shows that during the 13 years, 1909-1921, the hypothetical value of the prevented production of cotton from all causes totaled \$1,473,599,000. Of that amount the boll weevil damage amounted to \$3,102,152,000. The farm value of cotton, including seed, produced in those 13 years aggregated \$15,646,523,000, or an average of \$1,203,578,700 a year.

An Immense Damage.

Actual production of cotton in those 13 years aggregated \$159,648,000 bales, while damage from all sources aggregated 109,434,000 bales, of which the boll weevil is credited with preventing production of 28,776,000 bales. The potential production of cotton in the United States for those years therefore aggregated 269,082,000 bales, or an average of 20,698,615 bales yearly, while the reduction of the crops because of damage from all sources averaged 8,118,000 bales annually, and the boll weevil's average toll, 2,213,538 bales yearly.

From point of loss in production through all causes, 1921 was a wretched year. The estimated potential production aggregated 18,666,000 bales, prevented production being 10,712,000 bales, for which the boll weevil was responsible for 6,277,000 bales. The actual production was 7,954,000 bales. Prevented production therefore far exceeded the actual crop and the weevil caused a reduction equal to 79 per cent of the actual crop. Had it not been for

the weevil last year's crop could have been obtained from 66 per cent of the acreage cultivated. The weevil was more destructive than all other causes of damage combined, being credited with 59 per cent of the total damage.

Ravages of the Weevil.

Estimated loss through the ravages of the boll weevil, loss of potential production through the boll weevil, climatic conditions, plant diseases, other insect pests, deficient seed and other or unknown causes, together to the production for the years 1909-1913, expressed in thousands of bales, follows:

Year	Weevil Damage	All Causes	Crop Produced
1921	6,277	10,712	7,954
1920	4,595	8,975	12,987
1919	2,780	8,825	11,421
1918	1,325	9,136	12,041
1917	2,095	8,954	11,302
1916	2,994	9,505	11,450
1915	1,983	7,346	11,192
1914	1,381	5,937	16,135
1913	1,579	7,937	13,156
1912	714	7,143	13,703
1911	388	6,893	15,693
1909	1,368	9,369	10,005

13 years 28,776 109,343 159,648
Yearly av. 2,214 8,418 20,699

The loss from all causes in 1921 was 163.1 pounds per acre.

The nearest approach to that figure was in 1909, when the loss was 144.9 pounds per acre and the smallest loss was in 1911, with 91.5 pounds. The average damage from all causes in the 13 years 1909-21, was 115 pounds per acre, made up as follows:

Deficient moisture, 26.5 pounds; excessive moisture, 13.2 pounds; other climatic causes 9.6 pounds; plant disease, 3.1 pounds; insect pest 10.9 pounds; defective seed, 0.3 pounds, and other or unknown causes, 10.3 pounds.

Prevented Production.

The value of the prevented production, at farm prices of picked production, from the boll weevil, and from all causes, and the value of the picked crops of the 13 years expressed in millions of dollars, follow:

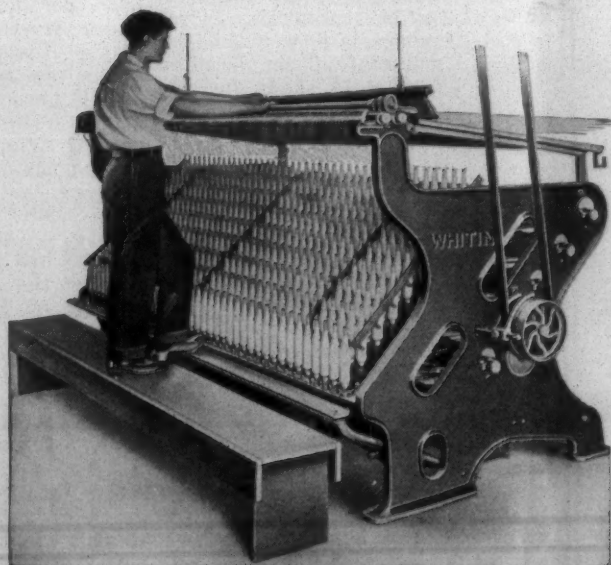
Year	Boll Weevil	All Causes	Crop Value
1921	\$ 610	\$ 1,043	\$ 773
1920	409	807	1,204
1919	569	1,826	2,371
1918	230	1,586	2,087
1917	355	1,474	1,866
1916	326	1,040	1,253
1915	143	525	796
1914	65	266	720
1913	113	575	1,027
1912	45	470	904
1911	17	393	870
1910	106	722	963
1909	114	755	812
13 yrs.	\$3,102	\$11,474	\$15,646
Yrly av.	\$ 239	\$ 960	\$ 1,203

Steady Improvement in Madras Cotton Goods Market.

The cotton goods trade of Madras, India, has of late continued the slow but steady improvement which began in March. The tone of the market is optimistic, and prices are slightly higher. (Vice Consul H. A. Doolittle, Madras, India.)

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N. B.—We are the sole manufacturers of nickel plated drop wires for every kind of loom.

Shambow Shuttle Co. to Equip Southern Plant.

Greenville, S. C., Sept. 4.—The Saluda Manufacturing company, located just outside the city near Woodside mills, which one year ago filed bankruptcy proceedings, and which early in July was placed in the hands of E. A. Gilfillin as trustee, was sold yesterday in front of the court house for \$29,000, to the Shambow company of Woonsocket, R. I., which company announced plans for transforming it into a spool, shuttle and bobbin factory.

The Riverdale mills just outside the city limits on the Cedar Lane road was sold to L. B. Houston, agent, for \$13,500. As yet plans for the development of the Riverdale mills are incomplete and Mr. Houston last night was unable to say just what steps would be taken in this respect.

For sometime the Shambow company has been operating a spool factory on Rhett street, but last Monday afternoon fire originating in the shavings room completely destroyed the plant which was valued at \$40,000.

With the purchase of the plant of the Saluda Manufacturing company by the Shambow interests, announcement was made that the building will be transformed into a factory for the manufacture of spools, shuttles, and bobbins, employing approximately 150 persons.

Special machinery necessary for the manufacture of these articles has been ordered and will be installed as quickly as received. This machinery, it was stated, will require 90 days to manufacture and it will be from four to six months before the plant is ready for operation as a spool, shuttle and bobbin factory. The textile machinery used during the life-time of the Saluda mill will be removed at once.

Numerous additions and changes will be necessary before the building can be utilized for the manufacture of textile accessories, it was stated. A concrete floor will be installed, a new roof will be placed on the building while sheds for the storage of spools, shuttles and blocks will be built. Extensive dry kilns, for the proper curing of material out of which the spools and shuttles are made, will also be erected.

Wood and fibre head spools as well as all varieties of shuttles used by the Southern trade will be manufactured here. When the plant is under way approximately 50 persons will be employed in each of the spool, shuttle and bobbin departments, making a total of 150 persons.

The land purchased with the Saluda mill comprises five acres and contains seven dwellings in addition to the mill itself. These residences will be used as homes for the employees of the new plant, it was stated.

The Shambow Shuttle Company, which has its main office and plant in Woonsocket, R. I., are said to be the largest manufacturers of shuttles in the United States. The company was established 43 years ago and is now in the hands of the third generation of Shambows. The company controls patents for the manu-

facture of devices to be used on all kinds of weaves.

In addition to maintaining a plant in this city, the company will also use Greenville as a receiving station for rough shuttle blocks which are made in the various mills throughout the South that are controlled by the company. John C. Shambow, president of the Shambow Shuttle Company, will return to Greenville within the next ten days and will devote virtually half of his time to the plant in this city and the remainder to the interests of the company at Woonsocket.

John C. Shambow, of Rhode Island, was in the city in connection with the sale of the Saluda mills. When interviewed yesterday he said that all the old machinery in the old Saluda mills had been sold to the Southern Textile Machinery company and that new machinery, modern in every detail would be installed.

The production of the old Rhett street mill averaged about 2,500 cotton mill spools each day. Mr. Shambow said that the new factory output would be almost double that of the old.

Salonica Fur Season Ends.

During the 1921-22 fur season just ended the principal furs received in the Saloniki market were: Hare 150,000; fox, 17,000; stone marten, 6,000; wild cat and jackal, 4,000 each; and badger, 3,000. Prices were 70 per cent higher than those prevailing in the previous season. This increase was due principally to the decline of Greek exchange. (Consul Leland B. Morris, Saloniki, Greece.)

Production of Sea Island Cotton in Dutch Guiana.

Extensive experiments with the growing of sea-island cotton, recently conducted in Dutch Guiana, show that this variety of cotton yields more per acre in that region of South America than in the United States. Advantages which sea-island cotton regions of the United States are (1) cheap land, (2) cheap labor, (3) no fertilizer needed because of natural richness of the soil, (4) no boll worms or boll weevils, (5) two harvests can be had each year, (6) cheap water transportation to the harbor. (Additional information may be had from the Textile Division or the district offices of the Bureau of Foreign and Domestic Commerce, by referring to file No. 64,637.) (Consul Chester W. Davis, Georgetown, British Guiana.)

British West Africa Taking Less Cotton Goods.

The smallest imports for many years of cotton piece goods into Gambia, British West Africa, occurred in 1921, when only 1,778,475 yards arrived. The per-war average was slightly under 7 1-2 million yards. In 1921 the United Kingdom supplied 83 per cent compared with 72 per cent in 1920, but there was a great falling off in imports from France and Senegal. Imports from the United States were negligible. (Consul W. J. Yerby, Dakar, Senegal.)

North Carolina Leads in Towel Production.

Washington.—The United States tariff commission has made a report on household articles made out of cotton. It is very elaborate and can be had at the government printing office at five cents per copy, and will prove of interest to cotton manufacturers and others. The articles considered include towels, bath mats, quilts, blankets, polishing cloths, moy cloths, wash rags, pillow cases, and batting. North Carolina leads in the production of some of these articles. She is at the top on towels and bath mats. New England is first on quilts and blankets, with North Carolina a close second.

Here are some of the more interesting facts pointed out in the report issued:

"Domestic production of the above mentioned commodities, in 1921, was valued at about \$100,000,000 at the mills, while the imports for that year were valued at \$410,341. No statistics are available as to domestic production of huck towels, but their value would run into several million dollars, and there is little foreign competition, as imports are extremely small.

"Towels, and bath mats—this domestic industry is centered chiefly in the south and east, the largest production being in North Carolina; followed by Pennsylvania, New Jersey and Georgia, in the order given. About 24,000,000 pounds of cotton are annually consumed by manufacturers of terry fabrics, and the industry has a capacity for a product

valued at \$20,000,000. No definite export figures are available, but Canada alone bought more than six times as much of us in 1921, as we imported. Our imports for 1921, were valued at \$70,659.

"Quilts and blankets—the New England states show a greater domestic production than any other section, with North Carolina probably second, and Pennsylvania third. The value of these articles in 1919 at the mills was about \$43,000,000; while the imports were valued at \$168,815.

"Domestic manufacturers practically controlled the home markets in the cheaper grades, while the higher priced goods have considerable competition. England is the most important source of foreign quilts.

"Most of the importations of blankets are not sold as such, but are made up into fancy jackets, lounging robes, bath robes, etc., having beautifully colored yarns, and the beautifully colored yarns, and the finished articles sell for high prices. Imports of cotton blankets from Japan have increased in late years, but their value amounted to only \$6,300 in 1919. The total value of quilts and blankets imported were greatest in the year 1920, when \$387,074 worth were brought in.

"Export statistics are not obtainable, but they are much larger than imports. For instance, we exported these articles to Canada alone in 1921, to a value of \$494,000."

"Polishing, dust, mop and wash cloths—The domestic manufacturers practically supply the whole United

States market. The imported varieties are fancy woven, which have sign. Polishing and dust cloths probably constitute the larger part of importations and come mostly from Germany.

Sheets and pillow cases—Domestic concerns primarily engaged in the production of sheetings are comparatively few, and other cloths, such as shirtings, sateens, chambrays, dress goods, drills, towels, crashes, and osnaburgs—are usually manufactured in conjunction with sheetings.

"The production of sheetings and pillow tubing, which is subsequently made into pillow cases, by domestic manufacturers is ample to supply our needs. It is conservatively reported that the yearly domestic production of sheets and pillow cases is valued at more than \$22,000,000.

"The industry is not localized, although the New England states produce more than any other section. A number of important establishments are located in Massachusetts, Rhode Island, New York, North Carolina, Virginia and Alabama.

"Sheets and pillow cases exported are not reported separately in our statistics, but Canada alone bought \$125,595 worth in 1921."

A chapter of cotton batting shows that imports are increasing. Japan and China supply a demand in Hawaii and Germany exports some to this country.

The articles mentioned in this report, which are made in the United States, are produced from American grown cotton and the yarns are also manufactured here.

Mrs. J. I. Cain Dead.

Mrs. J. I. Cain, wife of Superintendent Cain of the Knoxville Cotton Mills, Knoxville, Tenn., died on August 24th at her home in that city. Mr. Cain, who is one of the best known superintendents in the South, has the sympathy of a large number of friends, who will learn with much regret of his loss.

Cotton Movement From August 1 to August 25.

	1922	1921
Bales		
Port receipts	112,848	303,252
Port stocks	380,043	1,308,190
Interior receipts	173,483	327,645
Interior stocks	351,079	1,015,473
Into sight	463,907	559,876
Northern spinners' takings	99,285	118,041
Southern spinners' takings	228,882	222,499
World's visible supply of American cotton	1,618,122	3,783,203

Cotton Goods Market in Isle of Pines, Cuba.

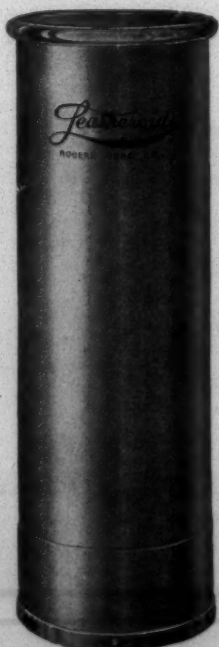
The market outlook for piece dyed cotton goods in Isle of Pines is good and a prosperous season is expected. American firms sending salesmen to this district enjoy a decided advantage over those who rely on correspondence. (A list of firms handling dry goods in Isle of Pines may be obtained by referring to the Textile Division.) (Consul Charles Foreman, Nueva Gerona.)

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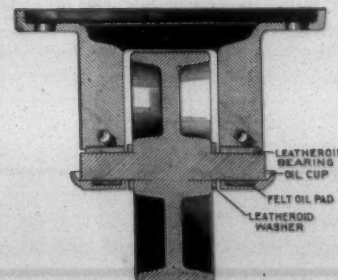
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THURSDAY, SEPTEMBER 7, 1922

The Cotton Crop.

The Government report now indicates a crop of 10,575,000 bales and with the ravages of the boll weevil this figure will probably be reduced below 10,000,000 in the October 1st report. The situation as we see it, is as follows:

Indicated crop..... 10,575,000 bales
Aug. 1, carry over.. 4,910,000 bales

Total supply..... 15,485,000 bales
Estimated
consumption ... 13,500,000 bales

Probable carry-over,
Aug. 1st, 1923..... 1,985,000 bales

Let us mentally step forward to March 1st, 1923, and realize the situation that will then present itself.

Consumption Aug.
1st, 1923, to Aug.
1st, 1924..... 14,000,000 bales
Carry over,
Aug. 1st, 1923..... 1,985,000 bales

Minimum to which
carry-over could
be reduced and
yet supply mills
during Aug. and
Sept. 1924..... 1,500,000 bales

Crop that must be
raised in 1923.... 13,515,000 bales

In March, 1923, only six months from this date we are going to come into a full realization that with a 1921 crop of 8,000,000 bales and a 1922 crop of 10,500,000 bales we must raise a 13,500,000 bale crop in 1923 and that even that figure will not provide an abundant supply. Should the October report indicate only 10,000,000 bales the required crop for 1923 will be advanced to 14,000,000 bales.

Can we raise 13,500,000 or 14,000,000 bales of cotton without finding some means of eliminating the boll weevil?

Every year there is a spring scare over the cotton crop but six months from now we are going to face a situation where every rain and every cold wind will send a shiver down the spine of the cotton manufacturer.

The English spinners are awake to this situation but are trying to keep under cover until they secure their supplies and we are trying to awake the Southern spinners to the seriousness of the situation.

Four weeks ago the cotton fields in the cotton counties that lay along the Southern border of North Carolina were beautiful but reliable men tell us that in every cotton bloom there are today from one to four boll weevils and throughout the cotton belt, with the exception of a portion of Texas the same story is told.

The mills may not buy cotton as fast as it comes upon the market this fall and that may cause a decline in price but we are confident that a price of 30 cents will be reached not later than January 1st, and if the 1923 crop gets a bad start 30 cents will look cheap.

We have never faced the situation that is now almost at our door but it is worthy of close study and as prices anticipate conditions we should carefully study the possibilities of the next two years.

The man who wants to buy cheap cotton goods or yarns prates of high prices killing the demand but scant heed should be paid to him.

Experiences of the past have shown that a greater demand and larger profits for the mills have fol-

lowed higher prices for cotton!

It is easier to sell goods with cotton at 22 cents than it was at 16 and there will be a greater demand for goods with cotton at 30 cents than there is today.

The normal pre-war consumption of American cotton was 14,700,000, an amount that has only been raised three times in the history of the South and then with only a portion of the South boll weevil infected.

We are coming back to a consumption of 14,700,000 bales and will exceed that figure if the cotton can be raised.

If not in a serious situation in 1923 we will be upon the ragged edge of one and unless the boll weevil is conquered we will soon see the time that cotton spindles will be idle because there is not enough cotton.

Yarn Market Improving.

We are reliably informed that one Southern mill booked orders for 850,000 pounds of yarns, during the last three days of last week. That particular mill had at one time approximately 1,500,000 pounds of yarn on hand but prior to the above sale had reduced those stocks to about 100,000 pounds. Sales of 20½ and 24½ have been made in the past few days at 3 to 4 cents above the quoted prices. In fact tinged yarns has been sold at above the quoted prices of white yarn.

A feature of the past week has been the presence in the South of representatives of the big speculative yarn houses. One of these men kept a long distance phone busy for more than five hours and it is assumed that he made large purchases.

When the market advances, as we believe it will, the mills that sold yarn to the speculators will have to compete with their own yarn in the hands of those speculators and therefore satisfactory prices will be more difficult to obtain.

Stock of yarns have been reduced for more than is realized and concerted action by the yarn spinners could easily advance prices.

Strikers Enjoined.

Attorney Gen. Daugherty sprung a surprise upon the striking railway shopmen when he secured an injunction prohibiting them from interfering with the operation of trains.

"The underlying principle involved in this action," Attorney General Daugherty said, "is the survival and supremacy of the Government of the United States."

"No union or combination of unions can, under our law, dictate to the American union," the Attor-

ney General continued. "When the unions claim the right to dictate to the Government and to dominate the American people, and deprive the people of the necessities of life, then the Government will destroy the unions, for the Government of the United States is supreme and must endure."

"So long and to the extent I can speak for the Government of the United States, I will use the power of the United States, I will use the power of the Government within my control to prevent labor unions of the Country from destroying the open shop."

"When a man in this Country is not permitted to engage in lawful toil, whether he belongs to a union or not, the death knell to liberty will be sounded and anarchy will supercede organized Government."

The statements of the Attorney General follow very closely our own expressions as made in our editorial of August 24th.

Union labor can not dominate the United States and it is time its bluff were called.

Union labor represents only a small portion of our population and only a small portion of union labor believes in defying our Government. The issue has not been drawn too soon.

Southern Textile Exposition.

The eyes of the textile industry are turned towards Southern Textile Exposition to be held in Greenville, S. C., October 19th to October 26th, and a record breaking attendance is expected.

The Exposition will open on Thursday, October 19th, and will continue through the following Thursday, October 26th.

Every bit of space has been sold to exhibitors and a very interesting line of exhibits, including many new inventions and improvements will be shown.

The Southern Textile Association will hold its semi-annual meeting during the Exposition.

Lauderdale Cotton Mills, Meridan, Miss.

August 23, 1922.

Clark Publishing Co.,
Charlotte, N. C.

Gentlemen:

Please forward my Bulletin hereafter to Boise, Idaho, care The Edward Stein Company.

I am going to spend a year in the west and want to keep in touch with the industry, do not know of any better way than by having The Bulletin.

Yours very truly,
H. H. BAKER.

Jamaican Market for Cotton Remnants.

Jamaica offers a market for cotton remnants if they are sufficiently large to be made into garments, but there is no demand for rags, waste, and similar products of cotton. The principal market in Jamaica is for cotton piece goods suitable for wash dresses. (Consul Charles L. Latham, Kingston.)

Personal News

J. R. Haney and M. D. Sides of Newton, and Mr. Cox, of Concord paid us a visit lat Saturday.

J. W. Walters has become overseer of carding at the Knoxville Cotton Mills, Knoxville, Tenn.

James Hardin has resigned as overseer carding at the Knoxville Cotton Mills, Knoxville, Tenn.

Arthur Wigley, of Langdale, Ala. has become overseer of weaving at the Piedmont Mills, Egan, Ga.

Amick has resigned as overseer of weaving at the Edna Mills, Reidsville, N. C.

C. H. Goodroe has resigned as superintendent of the Standard Mills, Monroe, N. C., and accepted a position at LaFayette, Ala.

Bynum Neal has resigned as loom fixer at the Savona Mfg. Co., and now has a similar position at the Holly Mfg. Co., Charlotte.

J. W. Gilley, who has been out of the mill business for some months, has become overseer of weaving at the Edna Mills, Reidsville, N. C.

Ray Lomax has accepted the position of night overseer of carding and spinning at the Everett Cotton Mills, Monroe, N. C.

D. E. Clark, overseer carding at the Columbus (Ga.) Mfg. Co., has been visiting friends at the Knoxville (Tenn.) Cotton Mills.

W. F. Massagee, of Kings Mountain, N. C., has become overseer of spinning at the Hudson Cotton Mfg. Co., Hudson, N. C.

W. P. Leister has been transferred from superintendent of the Seneca plant of the Victor Monaghan Co., Seneca, S. C., to a similar position with the Walhalla plant of the same company, Walhalla, S. C.

J. M. Childers has resigned as overseer of spinning at the Hudson (N. C.) Cotton Mfg. Co., to accept a similar position at the Lenoir Cotton Mills, Lenoir, N. C.

H. B. Helms has resigned as overseer carding and spinning at night at the Everett Mills, Monroe, N. C., and accepted a position at the Bearskin Mills, of the same place.

R. W. Hamby, who was for some time second hand in weaving at the Savona Mills, Charlotte, is now overseer weaving at the Piedmont Commission Co., of the same city.

J. W. Thomas, of the Hanes Mills, Winston-Salem, N. C., has accepted the position of overseer carding at the Golden Belt Mfg. Co., Durham, N. C., succeeding the late P. L. Saunders.

Padgett has been promoted from overseer of carding at the Greer plant of the Victor-Monaghan Co., Greer, S. C., to superintendent of the Seneca plant of the same company, at Seneca, S. C.

A. R. Eller has resigned as night superintendent at Landis, N. C., to accept a position at the Ronda Cotton Mills, Ronda, N. C.

P. L. Saunders Dead.

Durham, N. C.—P. L. Saunders died Sunday, August 27, 1922 at his home on Ramseur Street, from a complication of diseases. He had been confined to his room for the past six months and his death while not expected was a sad shock to the entire community.

For the past 16 years he had held the position of overseer of the card room at the Golden Belt Cotton Mills, Durham, N. C., and was considered one of the best carders of the South. He received his mill training at the Odell Mills, Concord, N. C. He was superintendent of the Cannon Mills, Concord, N. C., at night, for a number of years before coming to Durham, and was one of the best known and well liked men of the city. He was an active and faithful member of Trinity Methodist church, and was a regular attendant at its services, taking a prominent part in the Sunday school work. He was a fine Christian character and loved and admired by all who knew him. He was born in Concord, N. C., Cabarrus county, on August 12, 1859, and was therefore 63 years of age.

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The Perfected, Non-Soluble, Cleaning, Polishing Cleansor, Deodorizing Scouring & Scrubbing Powder. "Six in One"



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Asheville, N. C.

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L. F. STRATTON & SONS, PROP.

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Seamless—and as smooth as glass
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Strong Turned Over Top—
Clear Entrance and Exit

In addition to the above advantage there is no top sway in this or any other Laminar Roving Can. And the silver always coils up evenly inside. We think little need be said about the quality of this Can—the fact that it's a Laminar guarantees that. It will be on the job years from now. Make sure also that when you buy fibre trucks, boxes, baskets and cars that your order calls for Laminar Receptacles. We'll send a book on receptacles. Tell us where.

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Sole proprietors and manufacturers

New England Dept.: 12 Pearl St., Boston

C. C. Bell, Vice-President,

Resident Manager

Home Office—Wilmington,

Delaware

Factories at Wilmington and

Newark, Delaware



The Mechanical Weather Man Says



"Weather may come
and weather may go
But Carrier makes
weather whether or not"

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AIR CONDITIONING EQUIPMENT

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Humidifying, Heating Cooling, Ventilating
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Standard
Size of the South

Mildew, bleach and dye troubles are unknown to mills
using Sizol

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Sizings

Softeners

Finishings

S. C. Thomas and C. C. Clark, Spartanburg, S. C.

MILL NEWS ITEMS OF INTEREST

Griffin, Ga.—The Chamber of Commerce is interested in the organization of a new company to manufacture knit goods.

Rome, Ga.—The Anchor Duck Mills closed down for nine days but will resume operation September 6. During the close-down the clerical force will make their annual stockholders report, winding up the business for the fiscal year.

Pendleton, S. C.—The Pendleton Cotton Mill is expected to reopen this week, after being suspended for some months this summer. Most of the workers left the village and have scattered, but some remain awaiting the opening. B. C. Young is superintendent of this mill, which is under the B. B. Gossett system.

Greenville, S. C.—The Riverdale Mills, located just outside Greenville on the Cedar Lane road, was sold at auction to L. B. Houston agent, for \$13,500. As yet the plans for the development of the mill are incomplete and Mr. Houston declines to say what steps will be taken in this respect.

Chattanooga, Tenn.—The first unit in the enlargement plan of the Dixie Spinning Mills which plan construction of 15 units, each to be equipped and operated as separate plants of 15,000 spindles each, will be started within a short time. The first plant is to cost \$500,000. Roberts & Co., of Atlanta, are the architect-engineers.

Belmont, N. C.—The Acme, Linford and Perfection mills have let contract for the erection of forty new homes in their villages.

These homes will be needed to run the machinery recently ordered by these mills.

The Minter Homes Company, of Greenville, S. C., has awarded the contract.

The machinery is expected to begin arriving this month, and it is planned that the installation will be completed during December.

The mill officials expect the mills to be running by the first of Janu-

Monroe, N. C.—George S. Lee, Sr., J. W. Laney, J. W. Fowler, F. W. Pinkston and H. F. Dillon went to Hickory last Wednesday to make investigations in regard to the Coast Line Overall Company's business, with a view to inducing these people to establish a factory in Monroe.

It will be remembered that representatives of this company have recently made visits to Monroe looking for a more central location for the plant. The visitors from here were very deeply impressed with the sound business basis upon which this business is built, and efforts will doubtless be made to bring the factory here. Should it be located in Monroe, a two-story building 40 by 100 feet will be constructed, and a pay roll of about \$1,000 a week will be maintained.

BUY YOUR LOOMS FROM LOOM SPECIALISTS

BUY YOUR WARP STOPS FROM

R. I. WARP STOP EQUIPMENT COMPANY

414 REALTY BUILDING

P. O. BOX 1026 CHARLOTTE, N. C.

S. ARLEIGH, SOUTHERN REPRESENTATIVE

JUST AS OTHER REPRESENTATIVE MILLS ARE DOING. SEND FOR INFORMATION

MOTORS—on Hand

1—125 H. P. General Electric, 2200 volt, 600 r. p. m.

1—100 H. P. Westinghouse, 550 volt, 690 r. p. m.

1—75 H. P. General Electric, 2200 volt, 900 r. p. m.

1—50 H. P. General Electric, 2200 volt, 875 r. p. m.

1—15 H. P. General Electric, 550 volt, 1200 r. p. m.

Used, good condition.

Also Robbins & Myers new Motors, from 50 H. P. to 1-10 H. P., 220 and 550 volts.

SOUTHERN TEXTILE MACHINERY COMPANY

Greenville, S. C.

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Complete Topographic Surveys
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Supervision of Landscape Construction
Inspection and Maintenance

Largest Landscape Organization in the South



CLEAN QUALITY

SUPERIOR SERVICE

If a drive is worth belting, it is worth belting well. Why be satisfied with a mediocre belt? Cheap belting is false economy—the safest investment in the world has always been REPUTATION.

Charlotte Leather Belting Co.
Charlotte, N. C.

Rockingham, N. C.—The Entwistle Manufacturing Co., plans to begin actual construction work on October 1 on the large addition which will be made to their mill, as previously reported. The new addition, which is to cost \$900,000, will be used to manufacture print cloths. Roberts & Co., of Atlanta, are the architect-engineers.

Shelby, N. C.—The new cotton mill to be erected here by J. R. Dover and associates will be known as the Dover Mill Company. J. R. Dover will be president; Charles C. Blanton, vice-president and E. R. Morgan, secretary. The company has a capital stock of \$40,000. Ninety per cent of the stock was subscribed by the Kiwanis Club.

The initial equipment of the Dover Mills will be 10,000 spindles and 250 looms for the production of print cloths. Plans for the building are being prepared by J. E. Sirrine & Co., Greenville, S. C.

Roanoke Rapids, N. C.—Subscription books of the \$1,500,000 Rosemary 7 1-2 per cent sinking fund secured gold bonds offered to investors by a syndicate headed by Otis & Co. New York, have been closed, it was announced, the issue having been largely oversubscribed.

These bonds, "when, as and if issued" were offered yesterday at a price of 100 and acquired interest to yield 7 1-2 per cent. In connection with the offering the company submitted the following condensed balance sheet as of June 30, 1922, adjusted to give effect to the present financing:

Assets.

Plants equip. real estate..	\$4,502,705.76
Reserve for depreciation..	355,530.06
Prepaid dis. int. and ins..	161,086.85
Stock of other companies	1,693,600.00
Patents	13,416.73
Other assets	80,284.46
Accts. rec.	380,557.81
Cash	539,381.24
Bills rec.	14,268.31
Inventory	1,587,639.57
Total.....	\$8,617,410.67

Liabilities.

Accounts payable	\$ 83,858.47
Notes payable	470,000.00
Accrued taxes	177,861.61
Secured gold bonds	1,500,000.00
Common stock	3,800,000.00
Preferred stock	1,378,700.00
Surplus	1,206,990.59
Total.....	\$8,617,410.67

The proceeds of the present issue, it was stated yesterday, will be used to complete the acquisition of the controlling interest in the Roanoke Mills Co., manufacturers of cotton flannels. The Rosemary Manufacturing company manufactures a complete line of high grade cotton damask.

The present bond issue is a direct obligation of the Rosemary company, having total net tangible assets of \$7,714,187, equal to \$5,140 for each \$1,000 bond, and net quick assets of \$1,193 for each bond. In ad-

dition the bonds are secured by a pledge with the trustee of 15,240 shares of a total authorized and outstanding 30,000 shares of Roanoke Mills Company common stock, having a book value of \$1,759,686.

Average annual net earnings for the last six years, after depreciation but before Federal taxes, were \$460,244, or over four times the annual interest requirements of \$112,500 on this issue. For the first six months of the current year, net earnings were \$33,457.

Reserve Bank Reports Great Mill Activity—Weevil Depredation Increase.

Richmond, Va.—Prosperity in the textile field is evidenced by enough orders to keep mills running full time, and confidence in the future of the industry is shown by higher quotations asked and offered for mill stocks during the past month or two, says the monthly report of the Federal reserve Bank of Richmond, for the fifth district, released recently for publication. Correspondents report that the strike situation, both in fuel and transportation fields, is delaying contemplated new work in textile mill construction or enlargement to some extent. The report adds that a great deal of wet weather since July 25 has handicapped farmers in the cultivation of the cotton crop and has been highly favorable for boll weevil development. The boll weevil is present in large numbers over practically all of South Carolina and has entered North Carolina in sufficient numbers to be alarming in the coastal belt. Settlement or non-settlement of the railway showmen's strike is now the key to the labor situation in the fifth district, the report declares.

This district shows 150 bankruptcies in July, 1922, with total liabilities amounting to \$2,349,539, compared with 124 bankruptcies reported in July, 1921, with liabilities of \$1,565,856, while increases are shown both in numbers of bankruptcies and amount of liabilities, they are not to be construed as indicating that the tendency toward lower figures is materially checked, the report says.

Not Affected by Coal Shortage.

Chattanooga, Tenn.—Textile manufacturers of this section have as yet been little affected by the inability on the part of the railroads to move coal, according to statements made by leading operators of this district.

T. N. VanDyke, general manager of the Richmond Spinning Company, declared that he had an ample sup-

ply of coal for present needs. The mill engaged in the manufacture of underwear is continuing on its four-day a week schedule. J. H. Wilson, treasurer of the Richmond Hosiery Mills, reported that his plant had a good supply of coal and that the mill is operating at approximately its normal capacity. An official of the United Hosiery mill who did not want to be quoted, stated that the company had enough coal to operate on and is running about 75 per cent of its machine capacity.

Accepts Position With Oxwell-Acetylene Co.

Muscoe Barnett of Richmond, Va., has accepted position as district salesman with the Oxwell-Acetylene Company, with headquarters at Charlotte.

H. C. Hall has been transferred to the Atlanta office.

Neuss, Hesslein & Co. to Open Charlotte Office.

Neuss, Hesslein & Co., who have been for years large exporters of cotton goods, have decided to become more active in the cotton goods commission business and with that end in view have opened a Charlotte office with J. A. Rountree in charge.

Mr. Rountree has for a number of years been manager of the Texas cotton Mills, McKinley, Texas, and resigned recently to accept this position with Neuss, Hesslein & Co.

Lost Production New 334,299,985 Yards.

The Daily News Record estimate of lost production through the New England cotton mill strike, up to Saturday, September 2, totals 334,299,985 yards.

Operations will be resumed today at the Everett Methuen and Pemberton Mills so that with the Pacific and Otis both already in operation the strike in Lawrence is practically over. Following the lead of the Pacific Mills, all the mills named, with the one exception of Otis, abandoned the wage cuts that started the strike six months ago. Attempts are now under way to settle the strike at the Parkhill Mill in Fitchburg, which has been operating 50 per cent. Russell B. Lowe, president of the mill, was credited with saying during the week that in other strike centers, especially the gingham mills copy the lead of the Lawrence mills, his plant will fall in line with the resumption of operations at wages in effect before the strike.

Productoin at the Knight Mill was stated to be about on the same basis as the past two weeks. With the strike in Rhode Island considered by the manufacturers as nine-tenths broken, New Hampshire now becomes the main zone of the labor troubles. During the past weeks additional parts of the Amoskeag plant were put into operation, officials stating that they now have 10 out of their 20 main mill plants producing. The mill officials are authority for the statement that approximately 2,500 workers have so far returned.

Coal Situation in North Carolina.

Indications are that the coal shortage which threatens to hamper mill operations in many North Carolina Mills will soon be relieved, according to advices from Washington. Officials of the Department of Commerce appear confident that coal supplies from Alabama mines will be received by Southern mills in time to prevent serious embarrassment from lack of fuel.

Resident Export Representatives in Rumania.

World textile traders are finding it to their advantage to have resident representatives in Rumania. Early this year wholesale stocks of cotton and woolen goods in Rumania were much depleted. Stocks were promptly shipped from the home country of one of the resident representatives and found a ready market on a cash basis. The same procedure was effective in the case of velveteens and still more recently when the market was bare of alpaca. Thus far, hardly any systematic development of the Rumanian textile market has been made by American exporters. (Trade Commissioner Louis E. Van Norman,

Arnold, Hoffman & Co., Inc.

PROVIDENCE, R. I.
BOSTON, MASS.

PHILADELPHIA, PA.
NEW YORK, N. Y.
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Importers and Manufacturers of Specialties for

Sizing, Softening and Finishing All Textile Fabrics

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BELLE ALKALI COMPANY of Belle, W. Va.

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LIQUID CHLORINE
BLEACHING POWDER
CAUSTIC SODA, Solid and Flaked

DISINFECTANT

We guarantee our disinfectant to meet any government specifications. We manufacture them ourselves, and do not fill them with rosin or other cheap fillers. Get our prices. They will surprise you.

MASURY-YOUNG CO.

Established 1857

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WENTWORTH Double Duty Travelers

Last Longer, Make Stronger Yarn, Run Clear, Preserve the SPINNING RING. The greatest improvement entering the Spinning room since the advent of the HIGH SPEED SPINDLE.

Manufactured only by the

National Ring Traveler Company

Providence, R. I.

THE CHOICE OF A HUMIDIFYING SYSTEM

must be one that for simplicity with great capacity and economy in maintenance produces uniformly such conditions that may be determined for the different requirements of the work. In the American Moistening Company's method of humidifying, all such requirements are GUARANTEED.

Our COMINS SECTIONAL HUMIDIFIERS

Our FAN TYPE and HIGH DUTY HUMIDIFIERS

Our VENTILATING Type of Humidifier (Taking fresh air into the room from outside)

Our ATOMIZERS or COMPRESSED AIR SYSTEM

Our COMPRESSED AIR CLEANING SYSTEM

Our CONDITIONING ROOM EQUIPMENT

Our AUTOMATIC HUMIDITY CONTROL (Can be applied to systems already installed)

Our AUTOMATIC TEMPERATURE CONTROL

Are all STANDARDS OF MODERN TEXTILE MILL EQUIPMENTS.

AMERICAN MOISTENING COMPANY

RUSSELL GRINNELL, President

BOSTON, MASS.

FRANK B. COMINS, General Manager

SOUTHERN OFFICE, Atlanta Trust Company Building, ATLANTA, GEORGIA

TALLOW—OILS—GUMS—COMPOUNDS

ALSO HOSIERY FINISHING AND BLEACHINGS

TEXTOL, A new product especially for Print Cloths. A complete warp size, requires no addition of tallow



TRADE MARK

Tallow, Soluble Grease, Soluble Oils, Gums, Glues, Gum Arabol, Lancashire Size, Waxes, Finishing Pastes, Soaps, Glycerine, Ready-made Sazy Size, Sago and Tapioca Flours, Dextrines, China Clay, Soluble Blue Bone Grease, Bleachers' Blue.

SPECIAL COMPOUNDS FOR WARPS, WHERE STOP MOTIONS ARE USED.

WEIGHTING COMPOUNDS FOR COLORED AND WHITE WARPS.

FINISHING COMPOUNDS FOR ALL CLASSES OF FABRICS.

The Arabol best grades of cotton warp sizing compounds make the "finest weaving and will hold the fly."

These compounds are based on the best practical experience and the best materials used in their manufacture.

The Arabol Manufacturing Co.

Offices: 100 William Street, New York.

Southern Agent: Cameron MacRae, Concord, N. C.



Factories: Brooklyn, N. Y.

P. D. JOHNSON Co., Ala. and Tenn. Agent, Atlanta Ga.

R. F. GIBSON, South Carolina Agent, Greenville, S. C.

Preventing Textile Waste.

In an address before Midland Section of Dyers and Colorist, E. V. Chambers, an English authority, showed the necessity of conserving waste and preventing leaks in textile mills, his remarks being a consideration of such items as power and lubrication loss and similar items. A part of his address is given below:

In a textile factory, apart from the selection, purchase, blending, carding, spinning and weaving of the fibre, which are purely textile operations, there are many other factory services, as for example steam making, power and lighting, dyeing, scouring and milling, water supplies, effluent disposal, lubrication, engineering renewals and repairs. Of these processes one of the most important is the production of steam, and boiler plant and steam services often fall short of a reasonable measure of efficiency.

In many cases defects and their remedies are obvious, and it is the business of the textile manufacturer to see that those whom he engages as engineers should have the necessary fundamental knowledge to carry out their work intelligently and successfully. In all textile areas there are technical colleges equipped for giving the necessary training, and special courses for textile factory engineers should be provided, as they are for design, weaving and dyeing.

At the present time boiled efficiencies vary between 40 per cent.

and 85 per cent., the low efficiencies being generally due to imperfect boiler firing, badly arranged flues, absence of suitable economizers, defects in boiler setting, unsuitable feed water, and obsolete plant. A thorough and complete boiler efficiency test will bring into prominence the defects in the system, and many times such test have led to the saving of 20 per cent. of fuel.

Apart from the complete boiler test, there are certain methods whereby at any time the engineer in charge can ascertain the working efficiency of his plant. Such methods involve (1) the judicious use of a water meter; (2) a careful system of checking the coal burned; (3) means for ascertaining and controlling the draught; (4) the prevention of scale in economizers and boiler; (5) absence of oil leakages into the boiler setting and flues; (6) careful firing and clinking; (7) a CO recorder; (8) means of ascertaining the temperature of the chimney gases.

When a mineral lubricating oil has added to it a small percentage of fatty acid, lubrication is rendered more effective, as the fatty acid lowers the interfacial tension of the lubricant between the piston and cylinder, but this fatty acid readily combines with calcium and magnesium carbonates to form putty-like soaps, which tend to promote considerable friction in the cylinder. Alkaline boiler water may also affect the metallic packings and metal seatings of the stop valves.

A water meter is sufficiently ac-

curate for everyday working, and if periodically the water consumption is ascertained and checked against the quantity of coal burned, an approximate indication of the evaporative efficiency can be obtained. By observation the most suitable draught for efficient working may be determined, such determination being assisted by a knowledge of the amount of CO in the chimney gases.

A suitable feed water, one which does not form scale in the economizer or boiler, has a minimizing effect on the coal consumption.

The steam which leaves the boiler should be as free as possible from water. Too much importance cannot be attached to the necessity of dye steam, as steam accompanied by water which has foamed from the boiler, or which has been carried over mechanically, is impure, and is liable to cause trouble either at the engine or in the dyehouse or scouring and finishing departments.

In the steaming of pieces stains and uneven patches are frequently traceable to impurities carried by the steam, and where such difficulties are experienced the installation of a water separator of ample capacity will probably eliminate the trouble.

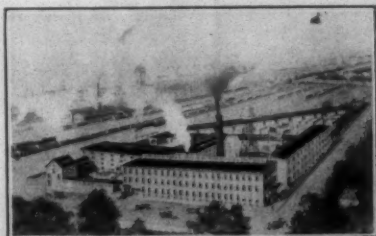
With regard to radiation losses, the main steam pipes are almost invariably protected against condensation losses, but pipes of smaller diameter are often quite uncovered. In a steam range each one foot length of uncovered one-inch diameter steam pipe may lose by conden-

sation heat equivalent to two pounds of coal per week. There are many factories where 500 ft. of such piping, or its equivalent, may be observed, thus causing a weekly loss of 1,000 pounds of coal, equal to 22 tons of coal per annum. A suitable pipe covering would also entirely prevent this loss, and would amply repay its initial cost.

Much steam is frequently wasted by the installation of small steam driven units such as pumps, small engines, and air compressors. Wherever possible such units should be driven from the power shaft. Small units often require 40 to 50 pounds of steam per h. p., while the main driving engine may develop 1 h. p. from 12 to 15 pounds of steam. When due allowance is made for empty friction load there is still a heavy margin in favor of belt driving from the power shaft.

By attention to such points as these the coal consumption in a certain works was recently reduced by 25 per cent, and three boilers were able to do the work for which previously four had been necessary.

With regard to the conservation of heat in the dyehouse, the spent dyebaths are usually discharged at boiling point, and the speaker has frequently considered the possibility of retaining a portion of this heat in clean water to be subsequently used for dyeing purposes. To heat to boiling point a dyebath containing one thousand gallons requires 100 lbs. of coal. If ten such dyebaths are discharged per day, and half the total heat could be retained,



DAVID BROWN
Pres. and Treas.

GEORGE G. BROWN
Asst. Treas. and Mgr.

THE DAVID BROWN COMPANY
Lawrence, Mass.

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Manufacturing Our

"HIGH GRADE"

Bobbins, Spools and Shuttles

Correspondence Solicited

Catalog on Request

Manufacturers of Speeders, Skewers, Warp Bobbins, Filling Bobbins, Cap Spinning Bobbins, Northrop Loom Bobbins, Twister Bobbins, Twister Spools, Warper Spools, Comber Rolls, Quills, Underclearer Rolls (plain or covered).

U S Bobbin & Shuttle Co.

57 EDDY STREET

PROVIDENCE, R. I.

SHUTTLES

We make a specialty of Shuttles for all makes of looms, both plain and automatic. Correspondence solicited.

a saving of 500 lbs. of coal per day would be effected, or approximately 70 tons per annum.

In textile districts the liquid waste products consist chiefly of dye liquors, waste scouring liquors, and various wash waters from scouring, milling and dyeing. There are smaller quantities of other liquids, as, for instance, boiler "blow-off" water and waste from water-softening plants. The materials recoverable from a textile effluent are (1) fibre, (2) oil and grease, (3) fertilizer, (4) water, (5) soap and scouring materials.

The figures in regard to fibre recovery from waste effluents would be incredible had they not been obtained from actual working results. Partly by estimation and partly by actual weighings it has been computed that 100 screen installations have recovered annually one and a half million pounds of dye, clean wool fibre, ranging in value up to one dollar per pound. In some cases 1 per cent of the raw material has been recovered in clean conditions from the waste effluent.

There are cases where the value of the fibre recovered has paid a fair return on the cost of a purification plant, but such a result is not possible in all cases. Screening is therefore an important factor in effluent purification. Apart from the value of the fibre it should be observed that when removed from the effluent the difficulties of pumping and the stoppages of tanks, drains and water-courses are eliminated.

July Textile Exports Decrease.

Washington.—A large decrease in exports of textiles is indicated in export statistics made public today by the Bureau of Foreign and Domestic Commerce, for the month of July, as compared with June. However, an increase is shown compared to exports in July, 1921.

The recent decrease is due, largely, to decreased exports of cotton during the month. Total exports in July last were valued at \$60,817,848, compared with \$70,939,239 for the June preceding and \$51,013,421 for July, 1921.

During the seven months ending with July last, exports of textiles were valued at \$424,861,662, an increase as compared to exports in the seven months ending July, 1921, valued at \$349,072,872. Due to delays in compiling figures in New York, the bureau was unable to make public today, import statistics. Figures showing exports of textiles are summarized as follows:

Exports of manufactures of wool during July amounting to \$530,306 were below such exports in the same month a year ago, when the value was \$645,307. During June last such exports were \$471,774, indicating a recent increase. Exports of manufactures of wool for the seven months ending with July showed a heavy decrease as compared with the same period the year before, the figures being \$3,522,654 and \$7,563,581, respectively.

Wool cloths and dress goods exported in July last totaled \$169,688, as compared with \$314,392 for July 1921. For the seven months' period just ended, such exports were \$915,678, compared to \$3,036,311 the year

before. Wool wearing apparel for men and boys exported in July totaled \$57,406 and wool wearing apparel for women and children totaled \$68,256.

Broad silks exported last month were valued \$319,930, comprising 250,459 yards, a decrease as compared to 259,985 yards valued \$319,985 in June. Exports for the seven months ending with July were 1,810,204 yards, valued \$2,216,922.

Silk hosiery exported last month totaled \$336,054 for 35,044 dozen pairs, which is a decrease compared with 45,847 dozen pairs valued at \$466,623 exported in June.

Cotton manufactures exported during July to the value of \$12,938,574, show an increase compared with \$8,618,824 for July, 1921, but a decrease compared to \$13,795,637 for June last. Exports of cotton manufactures for the seven months just ended were \$79,000,469 compared to \$68,977,535 for the same period ending with July, 1921.

Cotton wearing apparel exported in July was valued \$2,155,982, an increase over \$1,322,82 for the same month in 1921, but a decrease as compared with \$2,237,297 for the preceding month of June.

Manchester Goods Finished Abroad.

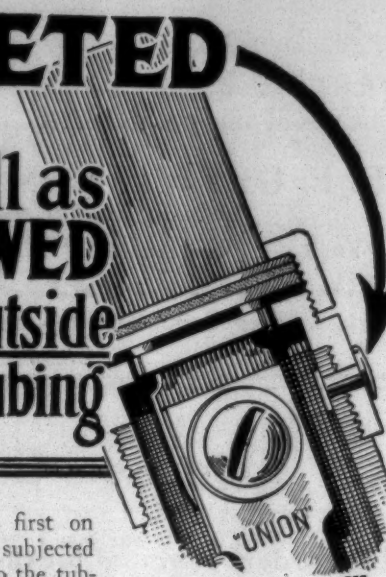
The quantity of Manchester cotton goods going through finishing processes on the Continent is increasing. The reason attributed for this is that labor is cheaper on the Continent and the rate of exchange favorable. For some time past cloth has been sent to Switzerland, Germany, Italy, and Holland in the gray state to be returned bleached, dyed, or finished. As a result of the operation the goods can be placed on the British market at a very competitive price. Considerable discussion has recently taken place on the subject of British labor costs compared with those obtaining in continental countries. It is said that owing to the lower labor costs abroad it is possible for the foreign countries to execute work which was formerly performed by Lancashire labor, according to Commerce Reports.

It is difficult, of course, for many reasons, to ascertain the actual destination of all the gray cotton goods that are shipped abroad for different finishing processes. British trade figures for the seven months ended July 31, 1922, show that while shipments of British goods remain practically unaltered as compared with the corresponding period of 1921, there has been a decline in the export of bleached and printed cloths and goods dyed or made from dyed yarns. Shipments of fine cotton goods were regularly made to Switzerland in large quantities long before the present situation arose the goods being for the most part embroidered there. It is the plain gray goods that are going abroad in increasing quantities from the United Kingdom for finishing quantities processes which results in a loss of work to the Lancashire operatives.

Principal textile exports from Czechoslovakia during July were: Linen goods, 284,000 square yards; cotton goods, 139,100 square yards; and artificial flowers, 10,600 pounds

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to the Outside
of the tubing



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Starch

Southern Textile Exposition

Plans for the Fifth Southern Textile Exposition, which will be held from October 19 to 25, in Textile Hall, Greenville, S. C., have been completed and the number of exhibitors who have already contracted for booths presages one of the largest and most successful of the fairs that have ever been held there, according to advices received from Greenville. William J. Sirrine, president and treasurer of the Textile Hall Corporation, which conducts the exhibitions, stated that the first and second floors of the hall have already been sold, and an additional announcement has been sent out to cotton mill men who have made application for booth space, asking if there is any intention on the part of the applicant not to show his products, that he notify the committee immediately because there are at present more applications from machinery and supply houses than can possibly be taken care of in Textile Hall, the exposition being primarily for cotton manufacturers.

Greenville is taking an active interest in the program of the fair, and has already made plans for the entertainment of all visitors.

Bulletins are being distributed which give information regarding the practical problems confronting exhibitors, with directions as to what committeeman has special charge over each phase. Besides the committees handling the inside work of the exposition, there is a committee on housing which is at the service of exhibitors, and will see that quarters are provided.

Special meetings of associations connected with the trade will be held during the exposition week. Those scheduled so far are: Southern Textile Association, October 20 and 21; Southern Textile Social Workers' Association, October 21 and the South Carolina Cotton Manufacturers' Association, October 24.

The committees of the exposition which are functioning at the present time, consists of the following:

Space—Jno. A. McHerson, chairman; G. G. Slaughter, J. MacRabb. Exhibitors—Milton G. Smith, chairman; DuPont Guerrey, Earle Stall.

Transportation—Guy B. Foster, chairman; Thos. H. Boyd, Fred Graham.

Housing—Walter Goldsmith, chairman; Floyd Hughes, J. H. Spencer.

Visitors—W. Lindsay Wilson, chairman; H. O. Wallace, Next Perry, Automobiles—W. D. Parish, chairman; W. W. Gayle, V. M. Manning.

Entertainment—W. F. Robertson, chairman; L. M. McBee, E. F. Woodside.

Publicity—Edwin Howard, chairman; Geo. Wrigley, R. S. Huntington.

Program—Jac. McCabe, chairman; Jno. L. Graves, Hampton Smith.

Conventions—D. L. Morris, chairman; H. B. Springs, Sam R. Zimmerman.

List of Exhibitors.

Alexander Bros., Philadelphia, Pa.; Aldrich Machine Works, Greenwood, S. C.; Allis-Chalmers Mfg. Co., Atlanta, Ga.; American Wool & Cotton Rep., Boston, Mass.; American

Scrubbing Equip. Co., Hannibal, Mo.; American Steam Gauge & Valve, Boston, Mass.; American Tool Co., Cincinnati, O.; American Vul Fibre Co., Wilmington, Del.; Atlanta Brush Co., Atlanta, Ga.; Armour Soap Works, Chicago, Ill.

Bahnsen Co., Winston-Salem, N. C.; Bahan Textile Machinery Co., Union, S. C.; Barber-Colman Co., Rockford, Ill.; Boiler Service Equip. Co., Atlanta, Ga.; Borne, Scrymser & Co., New York city; Butterworth A Sons Co., Philadelphia, Pa.

Carolina Supply Co., Greenville, S. C.; Carlisle-Johnson Machine Co., Manchester, Conn.; Central Electric Co., Chicago, Ill.; Charlotte Leather Belting Co., Charlotte, N. C.; Chicago Bridge & Iron Wks., Chicago, Ill.; Clipper Belt Lacer Co., Grand Rapids, Mich.; Cotton, Atlanta, Ga.; Corn Products Refining Co., Greenville, S. C.; Courtney, Dana S., Chicago, Mass.; Cresson-Morris Co., Philadelphia, Pa.; Crompton & Knowles, Worcester, Mass.; Crouse-Hinds Co., Syracuse, N. Y.; Columbus Truck & Supply Co., Columbus, Ga.

Damascus Steel Products Corp., Rockford, Ill.; Danville Conditioning Mch. Co., Danville, Va.; Davis & Furber Machine Co., North Andover, Mass.; DeLoach Quick Ice Machine Co., Columbia, S. C.; Detroit Graphite Co., Detroit, Mich.; Detroit Steel Products Co., Detroit, Mich.; DuPont de Nemours & Co., Wilmington, Del.; Duckworth, J. C., Greenville, S. C.; Draper Corporation, Atlanta, Ga.

Economy Baler Co., Ann Arbor, Mich.; Eclipse Textile Devices, El-Mich.; Eclipse Textile Devices, El-Britain, Conn.; Fancourt & Co., F. W., Philadelphia, Pa.; Fisher-Governor Co., Marshalltown, Ia.; Foster Machine Co., Westfield, Mass.; Ford Co., The J. B., Wyandotte, Mich.; Forney & Co., New York city; French, W. E., Atlanta, Ga.

Georgia Webbing & Tape Co., Columbus, Ga.; General Electric Co., Atlanta, Ga.; Graton & Knight Mfg. Co., Worcester, Mass.; Greenville Textile Supply Co., Greenville, S. C.; Grinnell Co., The, Atlanta, Ga.

Harris, A. W., Oil Co., Providence, R. I.; Hawer Manufacturing Co., Greenville, S. C.; Hawley Laboratories, Charlotte, N. C.; Helburn & Thompson Co., Boston, Mass.; Holbrook Raw Hide Co., Providence, R. I.; Holtzer-Cable Electric Co., Boston, Mass.; Howard Bros., Worcester, Mass.; Hopedale Manufacturing Co., Milford, Mass.

Huntington & Guerrey, Greenville, S. C.; Hulme, J. S., Atlanta, Ga.; Hyatt Roller Bearing Co., New York city; Jordan Manufacturing Co., Monticello, Ga.; Judson Mills, Greenville, S. C.; Keever Starch Co., Greenville, S. C.; Kaumagraph Co., New York city; Keystone Lubricant Co., Philadelphia.

Manufacturers Record, Baltimore, Md.; Manhattan Rubber Co., Passaic, N. J.; Mathieson Alkali Works, New York city; Mason Machine Works, Taunton, Mass.; Mossberg Pressed Steel Corp., Attleboro, Mass.; Morse Chain Co., Charlotte, N. C.; Monroe Calculating Mch. Co., New York city; McClave-Brooks Co., Scranton, Pa.; National Aniline & Chem. Co.,

New York city; National Lamp Works, Cleveland, O.; Norris Brothers, Greenville, S. C.; N. Y. & N. J. Lubricant Co., New York city; N. C. Reed Co., High Point, N. C.; Oakley Chemical Co., New York city; Olson, Samuel & Son, Chicago, Ill.; Park Manufacturing Co., Charlotte, N. C.; Parks-Cramer Co., Charlotte, N. C.; Peerless Folding Ladder Co., Greenville, S. C.; Piper Roofing Co., J. A., Greenville, S. C.; Pittsburgh Plate Glass Co., Atlanta, Ga.; Reeves Pulley Co., Columbus, Ind.; R. I. Warp Stop Equip. Co., Charlotte, N. C.; Rogers Ribre Co., Philadelphia, Pa.; Root Co., The, Bristol, Conn.; Ruggles - Klingemann Co., Salem, Mass.; Sellers & Co., Mm., Philadelphia, Pa.; Seydel Manufacturing Co., Jersey City, N. J.; Slaughter Machinery Co., Greenville, S. C.; Sloan, Walter E., (comptometer), Charlotte, N. C.; Surrine, J. E. & Co., Greenville, S. C.; Southern Textile Bulletin, Charlotte, N. C.; Southern Textile Spec. Co., Greenville, S. C.; Southern Franklin Process Co., Greenville, S. C.

Shambow Shuttle Co., Woonsocket, R. I.; S. K. F. Industries, New York city; Superheater Co., New York city; Standard Fibre Co., Somerville, Mass.; Stein, Hall & Co., New York city; Standard Oil Co., Charlotte, N. C.; Steele-Heddle Co., Philadelphia, Pa.; Stafford Co., The, Readville, Mass.; Speed & Co., James, Boston, Mass.; Sweeny, R. P., Union, S. C.

Talcott, W. O. & M. W., Providence, R. I.; Tension Co., L. V. B., New Bedford, Mass.; Terrell Machine Co., Charlotte, N. C.; Textile Digest, The, Philadelphia, Pa.; Textiles, New York city; Texas Co., Atlanta, Ga.; Textile World, New York city, Tull, J. M. Rubber & Supply, Atlanta, Ga.

Universal Winding Co., Boston Mass.; U. S. Bobbin & Shuttle Co., Providence, R. I.; U. S. Ring Traveler, Providence, R. I.; U. S. Gutta Percha Paint Co., Providence, R. I.; Veeder Manufacturing Co., Hartford, Conn.

Walraven Co., Atlanta, Ga.; Ware Shoals Mfg. Co., Ware Shoals, S. C.; Westinghouse Manufacturing Co., Atlanta, Ga.; Westinghouse Lamp Co., Atlanta, Ga.; Woods Sons Co., B., Chambersburg, Pa.; Wolstenholme Sons Co., Thos., Philadelphia, Pa.; Whitin Machine Works, Whitinsville, Mass.; Whitinsville Spinning Co., Whitinsville, Mass.

Tentative Program for Semi-Annual Meeting of National Association of Cotton Manufacturers.

H. C. Meserve, secretary of the National Association of Cotton Manufacturers, has arranged the following tentative program for the semi-annual meeting at Hotel Traymore, Atlantic City, on Wednesday and Thursday, October 4th and 5th: Wednesday afternoon—3 p. m. Report of secretary. Report of treasurer. Report of committees. The general topic for the meeting

will be, "The Story of Cotton Textiles."

On Wednesday afternoon at 3 p. m. the general topic will be "The Industrial Story."

1. Development of a Mill City.
2. The Economic Story.

Followed by discussion.

Second Session.

Wednesday evening—8:30 p. m.

On Wednesday evening there will be an entertainment furnished by the entertainment committee. "Some Smoker."

Third Session.

Thursday morning—9:30 a. m.

The general topic for this session will be, "The Mechanical Story."

1. Machinery Development of 100 Years.
2. Special features.
3. Looking for the Future.

Special Session.

Thursday afternoon—2 p. m.

1. Technical section.
2. Sports (under direction of enter-

tainment committee).

Fourth Session.

Thursday evening—7 p. m.

Dinner of the association.

President's address.

Address by Prof. E. W. Bullock.

Address by one other speaker.

The Cotton Yarn Merchants' Association of Philadelphia and the yatching trip for the ladies.

Philadelphia Textile Association have been invited to attend the banquet.

The entertainment committee appointed for the semi-annual meeting has given the following outline of its preparations:

Wednesday afternoon, October 4

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Our Southern Repair Shop in Charlotte is under the direction of Mr. W. E. Harvell who has had twenty years experience with us in rewinding lickerins and reclothing top flats.

Before Mr. Harvell took charge of this shop he served several years as an erector of Saco-Lowell cards.

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English Cotton Prices Seem Likely to Close Plants.

Manchester.—There are statements to the effect that the improved trading conditions noted in May and June were no true indication of further movement. As I have always pointed out, the present depressing state of the market is due entirely to the doubt aroused as to the subsequent price of raw material. The trend is undoubtedly toward an improved trade all around and given a satisfactory price for cotton—a price moreover that can be relied upon—we shall see mills working a normal week. But high priced cotton will, in my opinion, slow the trade enormously. There will not be th at panic buying of 1919 when goods at any price was the cry. The trade was severely hit and a lesson has been learned. If cotton—owing to the possible shortage—goes up in price, then I believe buying orders will stop, mills will close down or work short time, and the whole matter governed as it is by the law of supply and demand will adjust itself.

No one wants such a contingency to arise and the best thing for Lancashire and the markets of the world would be a stabilized price for cotton for the next 12 months. The amount of inquiries—and even firm orders—on the Royal Exchange, Manchester, is growing. And again I refer to the fact that these orders do not originate from one market only; they are general. The spinners have had a bad time. There is no money in the business but the latest reports are to the effect that that the offers and the prices wanted are more nearly akin.

The mills spinning American cotton in the Royton and Shaw districts are falling into line in regard to the full 48 hours will not stop prior to August 31, the mills will have been stopped this time before the middle of September.

As recorded in my cable dated August 17, Harry Dixon, head of the Dixon group of cotton mills, has, together with some of his colleagues, agreed to purchase Highfield Mill, Oldham. This action will enable Sir William Hopwood of Shaw to pay his creditors 20s in the pound. Sir William, who recently failed, was known as the "Shirt Sleeve" millionaire, and during the boom he bought mills extensively. Mr. Dixon is also a notable product of the boom, and his colleagues control a great number of mills. Mr. Dixon, who started life as an ordinary mill operative, firmly believes that the Lancashire cotton trade will pull round after the record slump it has experienced.

William Greenwood, M. P., who is one of the very few cotton spinners who have protestant views, has recently been saying a good deal about the necessity of taxing motor tires. On August 18, presiding at the half-year meeting of the Belgrade Mills Co., Oldham, he had something to say concerning taxation. That we are overtaxed at the moment the whole trade firmly believes, and Mr. Greenwood gave figures showing our taxation is at the rate of £17 2s per annum per individual; in the United States it is £5, France £9 8s, Belgium £3 12s, Italy £2 9s, and

Germany 13s 2d. The impost of taxation is discouraging trade, and Mr. Greenwood in voicing the opinion that some of this burden should be removed, is on much safer ground in Lancashire than proposing protective duties.

The Cotton Research Association is developing its resources admirably, but the question arises as to the continuance of funds in the future. At present the cost of running the Institute is almost £40,000 a year. The annual subscription of the members is only £10,000 a year, the balance being made up of a grant from the Department of Scientific and Industrial Research, which was to cease in two years and a grant of £30,000 a year for a limited period by the trustees of the Cotton Trade War Memorial Fund. In the chairman's recent report the council had taken the responsibility of allowing the Institute to grow to its present size in the confident belief that when the grants stated came to an end the members would be prepared to increase their subscriptions to make up the deficiency.

Undoubtedly the association is progressing, and as pointed out in a recent article of mine, the question arises as to whether the industry is in a fit state to assimilate the results.

At the laboratories at Didsbury, cotton is being grown, and in the greenhouse there nearly 300 plants of Sea Island, South American, West Indian, Egyptian and Indian cottons are now being cultivated. The reason for growing these cottons is to insure a supply of pure materials the origin of which is known, in order to have definitely correct research. One feature in regard to the growth of these cottons is that in September and October the light is not sufficiently strong to enable the material to mature. This year cotton has been planted earlier and is stated to be of much better quality. — Lancashire Correspondent Daily News Record.

Philippine Island Embroidery Trade Slumps.

Postwar conditions and a lower quality of needlework have combined to cause a general slump in the Philippine embroidery business. Manufacturers are said to be largely to blame for the decline in quality as they accept inferior workmanship. As a result both the reputation and the sales of the Philippine embroidery have suffered. (American Chamber of Commerce, Journal of the Philippine Islands, July, 1922.)

United States Taking Much Cape Mohair.

During April, May, and June Port Elizabeth exported to the United States nearly twice the amount of mohair shipped during the entire year of 1921. The greater part of the mohair purchased for American account consisted of super summer kids which brought fancy prices. Exports to the United States during April were 91,687 pounds, May 770,200 pounds, and June 812,263 pounds. (Consul Monnett B. Davis, Port Elizabeth, South Africa.)

Cheap Cotton Prime Textile Necessity.

(By Randall N. Durfee, of National Cotton Manufacturers' Association, in Journal of Commerce.)

The United States is in a unique position because embraced within her territory is that section of the world which up to the present time has proved to be best adapted to the cultivation of cotton.

The total consumption by American spindles of American-grown cotton, according to the Bureau of the Census, for the year ending July 31, was 5,891,683 bales. The number of active spindles reported by the same authority was 31,975,269.

The price of cotton directly affects hundreds of thousands of workers, both those who raise the raw material as well as those employed in the manufacture of the finished product. Cotton is the basis of their livelihood and it is of great concern to them whether the price of the raw material is cheap or dear.

Cotton should be cheap because it is one of the prime necessities of millions of people both in this country and throughout the world. Cotton cloth has been called the poor man's clothing; it is the clothing of all mankind. Being such a necessity, it requires no argument that it should be cheap so that it may come within the reach of all, otherwise it would mean great suffering.

Cotton should be cheap, because it is the means of livelihood of millions of workers outside of those employed in the textile factories. When cotton is high, either from artificial or material causes, these workers are either put on short time or thrown out of employment either on account of the lack of the raw material or because the public will not pay high prices and the manufacturer cannot take the risk of stocking up the finished product made from high priced raw material.

Cotton should be cheap, because cheap cotton means cheap prices for finished goods to the ultimate consumer; this means largely increased sales to meet the demand for which the manufacturer must increase his product; this can only be done by employing two shifts of workers, thus giving more people employment in his own plant or else by increasing the capacity of his plant by installing more machinery, thereby giving employment to more people to make the machines as well as to operate them; this additional employment means more money to be spent in trade.

Cotton should be cheap because all producers of either raw or finished materials should strive to produce them as cheaply as possible. There are opportunities in the cultivation of cotton to cheapen its cost of production; steps should be taken to make this production cheaper, which should also at the same time show more profit to the producer than is now the case.

Much has been said in the past few months as to diversification of crops, and there is no question that up to a very short time ago too little attention was paid to the planting of other crops than cotton. Every plantation should be self-sustaining

as far as possible, and should raise enough corn, cattle and produce so it would be unnecessary to buy same.

This method would not only enrich the land but would cheapen the cost of production. Other crops should not be raised for the purpose of sale, as land everywhere should be used for the cultivation of the material best adapted to it. Cotton is peculiar best adapted and can be kept indefinitely, not deteriorating. The planter should also ascertain the quality of cotton best adapted to the soil, and this quality only should be planted.

United States Must Hold Place.

Cotton should be cheap because the United States must keep its pre-eminent place in cotton culture; high prices bring competition which sooner or later will force cultivation elsewhere, and this will mean possibly the loss of the foreign cotton trade. South America has hardly been exploited and recently it has been stated authoritatively that Australia has a greater area suitable for the cultivation of cotton than all the present cotton producing sections of the United States. Nature has, however, given us a great advantage, but it is quite possible for this advantage to be lost unless we strive out utmost to produce cotton as cheaply as possible rather than to attempt to curtail acreage so as to make the price high.

Cotton should be cheap because cheap cotton as the foundation of cloth has a field entirely its own; dear cotton enters into competition with other raw materials, as flax, silk and wool, all of which may be relatively cheap in comparison. Such a condition means a lessened demand for cotton textiles, which might bring about serious unemployment.

Cotton should be cheap because only in times of cheap cotton does the manufacturer secure a reasonable profit on the capital invested, and the risk of manufacturing with a poor demand is at the minimum.

Cotton should be cheap because the cotton producing sections are capable of producing large enough crops to make cotton cheap, and this should be done. Last year's crop was slightly under 8,000,000 bales; the same acreage has produced 16,000,000 bales. The larger production means more employment for every interest handling this great staple until the finished article goes into consumption.

By cheap cotton is not meant a price which does not show a profit to the producer. All interests handling cotton are entitled to a reasonable profit, but the producer is not entitled to charge 20c for cotton costing 10c any more than the manufacturer is entitled to charge \$1 for the finished cloth costing 50c; such conditions are unhealthy and only cause trouble, but each is certainly entitled to a reasonable profit figured on normal conditions.

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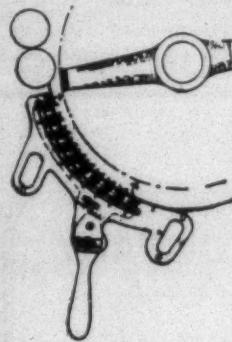


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Charlotte, N. C.

The Yarn Market

Philadelphia.—The yarn market showed a somewhat firmer tone during the closing days of the week and considerable trading was put through. The weavers and manufacturing trades bought fairly large quantities, although the knitters were not actively in the market and continued to adopt a waiting attitude toward the market. The effect of the Government crop report was apparently well discounted in advance, as yarn quotations were unchanged after the report was issued and yarn sellers and buyers laid no particular stress on it.

Reports from the yarn centers of the South indicated that the mills have been receiving more orders during the past week and that the improvement was sufficient to justify a much better feeling among the spinners. One will be reported to have received an order for 850,000 pounds. Prices remained firm during the week, with spinners showing a tendency to advance quotations, although dealers in Philadelphia were willing to shade prices on sales from stock or yarn on contract.

The knitting trades contend that they cannot sell their products on a basis of today's prices and are therefore buying in very small quantities and only when in actual need of yarns. Stocks held by knitters are generally regarded as being rather low and there is a strong belief that many knitters will come in the market when trade conditions have worked down to a more stable basis.

Quotations in this market were as follows:

Southern Two-Ply Chain Warps, Etc.	
10s	35 @
12s to 14s	36 @
2-ply 16s	37 @
2-ply 20s	40 @
2-ply 24s	41 @
2-ply 28s	42 1/2 @
2-ply 30s	46 @
2-ply 40s	60 @
2-ply 50s	78 @

Southern Two-Ply Skeins.	
5s to 10s	36 @
10s to 12s	37 @
14s	38 @
16s	38 1/2 @
20s	39 @
24s	41 @
30s	46 @
36s	57 @
40s	58 @
40s extra	62 @
50s	78 @
60s	88 @

Carpet—	
2, 3 and 4-ply	32 @
5-ply	32 1/2 @

Tinged Insulating Yarns.	
6s, 1-ply	30 @
8s, 2, 3 and 4-ply	32 @
10s, 1-ply and 2-ply	33 1/2 @
12s, 2-ply	34 1/2 @
20s, 2-ply	35 1/2 @

26s, 2-ply	42 @
30s, 2-ply	45 @

Duck Yarns.	
3, 4, and 5-ply—	35 @

10s	36 @
16s	39 @
26s	40 @

Southern Single Chain Warps.	
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to 10s	35 @
12s	36 @
14s	36 1/2 @
16s	38 @
22s	41 @
24s	41 @
26s	43 @
30s	47 @
40s	58 @

Southern Single Skeins.	
6s to 8s	35 @
10s	35 1/2 @
12s	36 @
14s	37 @
16s	38 @
20s	40 @
22s	41 @
24s	43 @
26s	43 @
30s	45 @

Southern Frame Cones.	
8s	34 @
10s	34 1/2 @
12s	35 @
14s	36 @
16s	36 1/2 @
18s	36 1/2 @
20s	38 @
22s	39 @
24s	39 1/2 @
26s	40 @
30s	42 @
30s double carded	44 @
30s tying in	41 @
40s	56 @

Southern Combed Peeler Skeins, Etc.	
2-ply 30s	60 @
2-ply 36s	65 @
2-ply 40s	72 1/2 @
2-ply 50s	82 1/2 @
2-ply 60s	92 1/2 @
2-ply 70s	1 05 @
2-ply 80s	1 15 @

Combed Peeler Cones	
10s	50 @
12s	50 1/2 @
14s	51 @
16s	52 @
18s	53 @
20s	54 @
22s	55 @
24s	56 @
26s	57 @
30s	58 @
32s	64 @
34s	65 1/2 @
36s	67 @
40s	69 @
50s	74 @
60s	90 @
	1 00 @

Eastern Carded Peeler Thread Twist Skeins.	
20s, 2-ply	48 @
22s, 2-ply	49 @
24s, 2-ply	50 @
30s, 2-ply	56 @
36s, 2-ply	64 @
40s, 2-ply	66 @
45s, 2-ply	70 @
50s, 2-ply	78 @

Movement of Cotton Crop in Colombia.

Colombian cotton has been coming in for about four months. The two Cartagena mills have bought respectively 500,000 pounds and 150,000 pounds of seed cotton at 4 per cent per pound. There have been no independent cotton buyers in the market this season. Mills have been selling the seed in England and Italy, that going to England bringing

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Cotton Goods

New York.—The cotton goods market were stronger last week until the Government crop report was issued. The mystifying effect of the report in driving future cotton quotations down, resulted in a withdrawing of orders in the goods markets and a tendency on the part of buyers to again await future developments. There is much talk in the markets of higher production costs and a very general feeling that when the various factors that are now retarding business are removed and the trade gets down to a steady basis, that cotton and cotton goods must rule higher and that buyers will eventually see the necessity of paying higher prices.

In the cloth division, sales were made on the basis of 8 3-4c for 38 1-2 inch 64x60s, 9 3-4c for 68x72s, 12 1-2c for 4-yard 80 squares and 6c for 8.20s. Many other sales were reported and it was thought that transactions closed Saturday ran well up to 100,000 pieces of print cloths and convertibles.

Sheetings are firmer and higher and some sales have been made on the higher basis now current. For 4-yard 48x52s 9 3-4c is now the current price; for 4.70s 9 3-4c, and for 40-inch 3.60s, 11 1-2c. There are some bak goods that have stiffened as a consequence of sales reported in the West during the day. The Western buyers seemed to be less troubled by the speculative decline than the trade locally and some deals were consummated in very fair volume after the report was issued, but on the basis of prices fixed on Thursday.

Several fine goods deals were held up. The converters who were inclined to be quite bullish late on Thursday and made substantial inquiries Friday morning pulled out temporarily after the cotton report came to hand. Canton silk sold on a basis of 49 1-2c for 35-inch 96x104s, 8-30 2-end 22-26.

Jobbers report a steady improvement in the demand for cotton damasks. Some of which have been slow for months. There has also been more call for bedspreads, and the call for towels in cotton show beyond question that retail stocks are low and have to be replenished often.

The blanket and napped goods departments report a good business with scarcity developing in some of the well known eastern standard lines that have not been on the market because of strikes. Some of the cotton blankets are not available for early shipment.

Carpets, rugs, upholsteries and curtains are moving well. These goods clearly reflect the activity in buying heavily in Ireland as well building this year. There has been

more business in gingham of the better grades, and more call for small lots of fancy percales. Some of the draperies are moving, but the call for the cheaper lines is not so good at the moment.

Wholesalers are doing a steady business. Road orders are fair, as a rule, but the volume of goods is light. This, however, has been characteristic of the whole season. A noticeable fact is that the northwest are sending in better orders than the manufacturing sections.

Japanese crepes are still in good demand, many reorders coming in during the week. Sponge cloths are staging a strong comeback. These fabrics are included in white grounds, with plaids and in pastel shades. Some have pastel stripes in Roman checkerboard effects. Candy stripes are also used. In the making of these goods thought has been given to the desired draping features, in view of the vogue for longer dresses for the coming season.

An all-over ratine yard decoration on a crepe ground is shown in four-color effects on white and colors. Shadow checks are a feature, coming in red and gold, burnt orange and black, rose and blue and gold combinations. Various sizes of checks in one pattern are worked out on mercerized cloth, basket-weave ground.

Some cotton manufacturers express the opinion that the staple will sell at more than 25 cents unless a decided change in the crop outlook occurs in the next 10 or 15 days.

Cotton goods prices were as follows:

Print cloths, 28-in., 64x64s.....	7
Print cloths, 27-in., 64x60s.....	6½
Gray goods, 38 1-2-in., 64x60s..	9¼
Gray goods, 39-in., 68x72s.....	9¾
Gray goods, 39-in., 80x80s.....	12½
Brown sheetings, 3-yard.....	12
Brown sheetings, 4-yard.....	11¾
Brown sheetings, So. Std.....	13
Ticking, 8-ounce	22½
Denims, 2.20	18½
Staple gingham	14¼
Dress gingham	18a20½
Standard prints	10¼
Kid finished cambrics	8½a9½

American Purchasing Belgian Linens

Large orders from America are reported by Belgian linen mills, the Department of Commerce is informed by the Brussels office. The mills attribute these purchases for quick delivery to the belief that the new American tariff will go into effect in August or September. It is also stated that in anticipation of this tariff American linen importers are buying heavily in Ireland as well as in Belgium.

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Want Department

Wanted

to know the whereabouts of Ben Fleming, card room man, who worked for me at Eatonton, Ga. J. W. Fernander, 912 Thirteenth Street, Meridan, Miss.

Wanted.

Position as overseer spinning or twisting, or both. Also winding, age 31, have been overseer past eight years. Very best of references. Married. Give me the job and I will give you the production at the right cost per lb. Now overseer, but wish to change. Address G. S. D., care Southern Textile Bulletin.

Information Wanted.

Information regarding whereabouts of W. M. Yelton, also known as Will Yelton, who left the Phenix Mills, Kings Mountain N. C., about June 15, is wanted for his family.

Yelton is 26 years old, height 5 ft. 10 or 11 inches; medium build; sandy hair, blue eyes. He is a weaver. Information will be appreciated. Write E. A. Smith, Jr., Superintendent, Phenix Mills, Kings Mountain, N. C.

Wanted.

Three good Loom Fixers for E Model Draper 32" Looms, Apply to J. J. Roberts, Overseer of Weaving, Barrow County Cotton Mills, Winder, Ga.

Shuttles for Sale.

367—New plain persimmon shuttles made by J. H. Williams Company, size 1 11-16" wide, 1 1/2" high, 14 3-4" long. Catch for 3-ring Draper quill @ \$12.00 per dozen.

41—Same as above, but very slightly used @ \$10.00 per dozen.

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During the three months' membership we send the applicant notices of all vacancies in the position which he desires.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

WANT position as superintendent. Excellent reason for changing. Would like to submit my references to mill needing high class man. Address No. 3539.

WANT position as superintendent. Now have superintendent's place in medium sized plant, but wish larger job. References as to character and ability. Address No. 3540.

WANT position as master mechanic. Now employed in large mill shop and have always given satisfaction over long period of years. References to show character, qualifications and training. Address No. 3541.

WANT position as overseer weaving. Now employed as weaver in good mill, but wish to locate in Carolinas or Georgia. High class man who can produce results. Address No. 3542.

WANT position as assistant superintendent or weaver. Now getting \$3,000 salary, but will take place at \$150 a month in more healthy location. Experienced in large mill; both white and colored goods. Married. Good references. Address No. 3543.

WANT position as cloth room overseer second hand in large room. Now employed as overseer in denim plant. Excellent references. Address No. 3544.

COTTON CLASSER and stapler desires position, preferably with mill. Experienced and can furnish references. Address No. 3545.

WANT position as superintendent or weaver. Prefer mill on colored goods. Now employed. Best of references. Address No. 3546.

WANT position as overseer carding, or carding and spinning. Practical man of long experience who can handle your carding or spinning on economical and paying basis. Address No. 3548.

WANT position as carder. Age 40; 18 years' experience in number of good mills. Gilt edge references. Address No. 3548.

WANT position as overseer weaving, beaming, slashing or quilling. Have handled all of above departments and can give good references. Now overseer weaving in mill on checks and chambrays in mill of 800 looms. Address No. 3549.

WANT position as superintendent, or carder and spinner. Now employed, but wish larger place. Good references. Address No. 3550.

WANT position as overseer of cloth. High class man of good habits who thoroughly understands the efficient handling of cloth room. Address No. 3551.

WANT position as carder or spinner or both. Age 43; 18 years' as overseer; good record as manager of help. Now employed as carder, but wishes larger place. References. Address No. 3553.

WANT position as overseer weaving. Settled man of good habits, long experience on both plain and fancy weaves. References. Address No. 3553.

WANT position as superintendent. Now employed as superintendent. Experience for more than 20 years as superintendent and overseer. Excellent references. Address No. 3555.

WANT position as cloth room overseer. Competent, reliable man of long experience. Can furnish excellent references. Address No. 3556.

WANT position as superintendent, manager or office manager in large mill. Can manage plant on efficient basis and would like opportunity to show qualifications to mill needing A1 man. Address No. 3557.

WANT position as carder or spinner or superintendent. Thoroughly qualified in both departments and have had long experience as overseer in a number of

WANT position as superintendent or weaver. Now employed but have good reasons for changing. Best of references. Address No. 3558.

WANT position as superintendent. Have successfully run some of the best mills in the South and can furnish references showing long period of satisfactory and productive service. Address No. 3559.

WANT position as superintendent, carder or spinner. Experienced and capable man of long experience. Settled habits. Address No. 3560.

WANT position as superintendent, carder and spinner, or both. Experienced man of practical ideas. Excellent references. Address No. 3561.

WANT position as superintendent. Have long record of good service and have always given satisfaction. Now employed. Excellent references. Address No. 3562.

WANT position as superintendent or weaver. Weaving experience covers period of over 20 years on wide variety of fabrics. Sober, reliable and good manager of help. Good references. Address No. 3563.

WANT position as carder. Long experience and have special knowledge of combed work. Excellent references. Address No. 3566.

WANT position as overseer weaving. Can handle plain or fancy work. Draper job preferred. Would accept place as designer in large mill. Thoroughly capable weaver in every respect. References. Address No. 3567.

WANT position as overseer carding or spinning, or both. Have worked in some of the best mills in South and always gotten good results. Good references. Address No. 3565.

WANT position as overseer carding. Practical man who can handle carding in efficient manner. Long experience. Specially qualified for combed work. Address No. 3568.

WANT position as superintendent. By experience and training am especially fitted to handle combed yarn mill. Will gladly submit references to mill desiring high class, experienced superintendent. Address No. 3569.

WANT position as overseer carding or superintendent in medium sized mill. Now employed as superintendent, but do not like location of mill. Long experience and thoroughly understand card loom details. Address No. 3570.

WANT position as cotton classer or buyer for mill in Carolinas or Georgia. Several years' experience in buying and classing long and short cotton, domestic and export. A-1 references. Address No. 3571.

WANT position as overseer of carding; 18 years' experience as carder and am competent and reliable in every respect. Good references. Address No. 3572.

WANT position as superintendent or overseer of carding and spinning. Now employed in medium sized mill, but am capable of handling job. References showing character and ability gladly furnished. Address No. 3573.

WANT position as superintendent of yarn mill. Now employed, but wish better paying place. Many years as superintendent and overseer, and am familiar with all departments of mills. Address No. 3574.

WANT position as superintendent, or would accept place as carder or spinner. Many years as superintendent and overseer and can successfully operate any size mill. Good reference. Address No. 3576.

WANT position as superintendent, or overseer carding and spinning. Now employed in good mill. Experienced as superintendent and overseer for more than 20 years. Excellent references. Address No. 3576.

WANT position as outside foreman. Experienced in the work and know how to keep the property up. Married, with family of mill help. Excellent references. Address No. 3577.

WANT position as superintendent or overseer carding and spinning. My experience over many years fits me for either of the three positions. Best of references. Address No. 3578.

WANT positions as superintendent, preferably of print cloth mill. Now employed, but wish larger place. Thoroughly experienced in handling a mill, but on outside and inside. References. Address No. 3579.

WANT position as superintendent. Have had long experience and have always gotten good results. Would like opportunity to submit my record to mill needing high class man. Address No. 3580.

WANT position as overseer weaving. Long experience and can give best of references as to character and ability. Address No. 3581.

WANT position as superintendent, assistant superintendent or overseer weaving. Prefer mill making gingham or fancy shirtings. Also consider position finishing and bleaching plant. Good references. Address No. 3582.

WANT position as overseer of cloth room in mill on white work. Now employed and giving satisfaction. Thoroughly experienced in cloth room. Address No. 3583.

WANT position as overseer of slasher room, tying-in and drawing-in. Would consider large room only. Can come on short notice. Good references. Address No. 3584.

WANT position as overseer of carding or spinning, or both. High class man of excellent character and ability to get results. Fine references. Address No. 3585-A.

WANT position as roller coverer, and belt man. Now employed but wish to change. Married, age 35, 12 years experience. Good references. Address No. 3585-B.

WANT position as overseer weaving or cloth room, or would consider place as traveling salesman for mill supply house. Excellent references. Address No. 3586.

WANT position as traveling salesman in textile trade. Ten years' experience in this field. Also experienced as weaving and slasher man. Address No. 3587.

WANT position as carder or spinner, or both. Prefer mill in North Carolina. Good man of long experience. References. Address No. 3588.

WANT position as overseer weaving. Best of references to show that I can deliver the goods. Address No. 3589.

WANT position as superintendent or overseer of weaving. Long experience in number of good mills and can give fine references to show character and ability. Address No. 3590.

WANT position as superintendent. Now employed as assistant superintendent in large mill, but am competent to handle mill. Fine references. Address No. 3591.

WANT position as overseer carding or spinning, or superintendent. Am textile graduate of N. C. State College and have worked around mill all my life. Now employed as overseer spinning. Excellent references. Address No. 3592.

WANT position as overseer weaving. Now employed in good mill but am competent to handle better position. Excellent references. Address No. 3593.

WANT position as assistant superintendent or overseer spinning, or salesman. Many years experience in erecting and overhauling carding and spinning, also as overseer spinning. Good references. Address No. 3594.

WANT position as overseer carding. Now employed in good mill, but have good reasons for changing. Best of references. Address No. 3595.

WANT position as superintendent of yarn mill, or plain weave plant, or overseer carding and spinning. Long experience as overseer and superintendent. Address No. 3596.

WANT position as superintendent, or would accept place as carder and spinner in large mill. Fine references. Address No. 3597.

WANT position as overseer spinning, or assistant superintendent. Am middle-aged man of temperate habits, married, and can give good references from past and present employers. Address No. 3598.

WANT position as master mechanic and engineer. Now have good night job, but wish to work in day. Excellent references. Address No. 3599.

WANT position as overseer finishing. Thoroughly competent and reliable and have excellent references. Address No. 3600.

WANT position as overseer of small room, or second hand in large room. Now employed, but want to change. Good references. Address No. 3601.

WANT position as superintendent. Now employed, but have excellent reasons for wanting to change. Would be glad to submit references to mill needing high class man. Can prove that I can get good results. Address No. 3602.

WANT position as second hand in weaving or loom fixer. Good record and good references to show for it. Address No. 3603.

WANT position as superintendent. Now employed as such in large mill, but prefer change of locality. Excellent references. Address No. 3604.

WANT position as overseer spinning or carding and spinning. Man of good character and settled habits, steady and experienced worker. Address No. 6305.

WANT position as general manager, superintendent or assistant superintendent. High class man of long experience, and thoroughly understand all phases of cotton manufacturing. Excellent references. Address No. 3606.

WANT position as superintendent, overseer of carding or spinning. Excellent references to show ability and character. Address No. 3607.

WANT position as overseer carding and spinning. Many years' experience and am thoroughly competent to handle either process. References. Address No. 3608.

WANT position as master mechanic. Understand both steam and electric plant, and can handle large or small mill. Address No. 3609.

WANT position as superintendent or carder and spinner. Now employed, but wish larger place. Good references. Address No. 3610.

WANT position as overseer of weaving. Age 38, good habits, steady worker. Good references, 2 years' experience and qualifications. Address No. 3611.

WANT position as overseer weaving. Good weaver of long experience. Can handle wide variety of fabrics. Address No. 3612.

WANT position as overseer large cloth room. Thirteen years' experience on all kinds of white goods. Age 32, married, 13 years as overseer. Best of references. Address No. 3613.

WANT position as overseer carding. Have had 24 years' experience, textile education, 3 years on tire duck. Best of references. Address No. 3614.

WANT position as overseer carding or spinning. Excellent worker, long experience, good references. Address No. 3615.

WANT position as overseer carding or spinning, or superintendent of good yarn mill. Good references to show past record and experience. Address No. 3616.

WANT position as overseer spinning. North Carolina preferred. Am thoroughly experienced in spinning and have handled rooms in some of the best mills in North Carolina. Fine references. Address No. 3617.

WANT position as overseer of weaving. Competent, experienced man who can get real results. Good references. Address No. 3618.

WANT position as master mechanic. Long experience in both steam and electric plants. Now employed. Good references. Address No. 3619.

WANT position as superintendent of medium sized mill on white work, or carder and spinner in larger mill. Excellent references to show character and ability. Address No. 3620.

WANT position as assistant to superintendent, agent or president. Long experience as mill man, stenographer, general office man. Textile college and I. C. S. courses. References. Address No. 3621.

WANT position as superintendent or spinner; 18 years an overseer and superintendent. Present job for two years. Have run some of the best jobs in the South. Wish change of locality, Piedmont section preferred. Address No. 3622.

WANT position as superintendent or overseer of weaving, white or colored, plain or fancy work. Have handled some of the best jobs in the Carolinas and can get results. Best of references. Address No. 3623.

WANT position as master mechanic. Competent man of long experience in mill and machine work. Address No. 3624.

WANT position as superintendent or traveling salesman. Now employed, but have good reasons for wishing to change. Fine references. Address No. 3625.

WANT position as overseer weaving in medium size mill or second hand in large mill making sheetings, prints, pajama checks. Experienced on both plain and Draper looms. Can come on short notice. References show I can deliver the goods. Address No. 3626.

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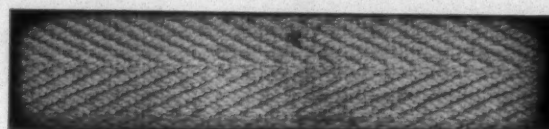
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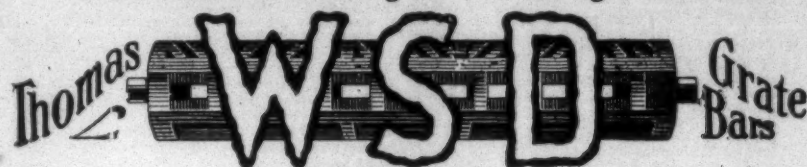
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Courtney Co., Dana S., Chicopee, Mass.
Cyclone Motors Corporation, Greenville, S. C.
- D—
Davidson, J. L. & Co., 2525 N. Second St., Philadelphia, Pa.
Dixon Lubricating Saddle Co., Bristol, R. I.
Domo, F. J. & Co., 116 Broad St., New York.
Draper, E. S., 506 Trust Bldg., Charlotte, N. C.
Draper Corporation Hopedale, Mass.
E. F. Drew & Co., Philadelphia, Pa.
Dronsfield's Sales Agency, 232 Sumner St., Boston, Mass.
Drake Corporation, Norfolk, Va.
E. I. duPont de Nemours & Co., Wilmington, Del.
- E—
Eblin & Co., 81 Broad St., New York.
East Jersey Pine Co., Patterson, N. J.
Emmons Loom Harness Co., Lawrence, Mass.
Eureka Iron Works, Inc., Lincolnton, N. C.
- F—
Fafnir Bearing Co., New Britain, Conn.
Florsheim, H. A., 225 Fifth Ave., New York.
Franklin Process Co., Providence, R. I.
Franklin Needle Co., Franklin, N. H.
- G—
Grant Leather Corporation, Kingsport, Tenn.
Gray-Barkley Co., Gastonia, N. C.
Woodford Wood Tink Mfg. Co., 710 Lincoln Bldg., Philadelphia, Pa.
Garland Mfg. Co., Saco, Me.
Gray-Separk Mills, Gastonia, N. C.
Greenville Textile Supply Co., Greenville, S. C.
- H—
Grinnell Co., Providence, R. I.
Kenneth Grigg & Co., Lincolnton, N. C.
- I—
Hemphill Co., Pawtucket, R. I.
Hepworth, John W. & Co., Lehigh Ave. and Mascher St., Philadelphia, Pa.
Huntington & Guerry, Greenville, S. C.
Hutton & Bourbonnais Co., Hickory, N. C.
- J—
Jennings Mfg. Co., Thomasville, N. C.
Jennings, A. T. & Co., 88 Broad St., New York.
Johnson & Howie, Monroe, N. C.
Jordan Mfg. Co., Monticello, Ga.
- K—
Kaumagraph Co., 209 W. 38th St., New York.
Keefer Starch Co., Greenville, S. C.
Klauder-Weldon Dyeing Machine Company, Jenkintown, Pa.
Klipstein & Co., A., New York.
- L—
Lesser-Goldman Cotton Co., Charlotte, N. C.
Lowell Shuttle Co., Lowell, Mass.
Link-Belt Company, Nicetown, Philadelphia, Pa.
Lineberger Bros., Lincolnton, N. C.
Lupton, David, Sons, Inc., Philadelphia, Pa.
- M—
Myles Salt Co., 712 Whitney Bldg., New Orleans, La.
Martin & Co., 116 Broad St., New York.
McCausland, J. N. & Co., Charlotte, N. C.
McGuigan, E. L. & Co., 24 Stone St., New York.
Macrodi Fibre Co., Woonsocket, R. I.
Marston Co., John P., 247 Atlantic Ave., Boston, Mass.
Masury-Young Co., 196 Milk St., Boston, Mass.
Mauney Steel Co., Philadelphia, Pa.
Marrow Machine Co., Hartford, Conn.
Metallic Drawing Roll Co., Indian Orchard, Mass.
Metz & Co., H. A., 122 Hudson St., New York.
Midland Chemical Laboratories, Dubuque, Iowa.
Morehead Mfg. Co., Detroit, Mich.
Morse Chain Co., Ithaca, N. Y.
- N—
North State Creosoting Co., North Charlotte, N. C.
National Ring Traveler Co., Providence, R. I.
National Aniline & Chemical Co., New York.
N. Y. & N. J. Lubricant Co., 401 Broadway, New York.
Newport Chemical Works, Passaic, N. J.
- O—
Oliver & Houghton, 59 Pearl St., New York.
Odell Mill Supply Co., Greensboro, N. C.
- P—
B. H. Parker & Co., Gastonia, N. C.
Paulson, Linkroum & Co., 52 Leonard St., New York.
Parks-Cramer Co., Fitchburg, Mass.
Pawtucket Spinning Ring Co., Central Falls, R. I.
Perkins, B. F., & Son., Holyoke, Mass.
R. O. Pickens Slasher Hood Co., Spartanburg, S. C.
Poland Soap Works, Anniston, Ala.
Puro-Sanitary Drinking Fountain Co., Haydenville, Mass.
- R—
R. I. Warp Stop Equipment Co., Pawtucket, R. I.
Rice, Dohy Chain Co., Millbury, Mass.
Rogers Fibre Co., 121 Beach St., Boston, Mass.
Rose Bros., Charlotte, N. C.
- S—
Roessler & Hasslacher Chemical Co., 709 Sixth Ave., New York.
Roy & Sons Co., B. S., Worcester, Mass.
- T—
Sanders, Orr & Co., Charlotte, N. C.
Saco-Lowell Shops, Charlotte, N. C.
S K F Industries, Inc., New York.
Seaboard Railway, Charlotte, N. C.
Seydel Mfg. Co., Jersey City, N. J.
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Southern Novelty Co., Hartsville, S. C.
Southern Railway, Charlotte, N. C.
Southern Spindle & Flyer Co., Charlotte, N. C.
Southern Textile Banding Mill, Charlotte, N. C.
Stewart Bros. Cotton Co., Charlotte, N. C.
Southern Engineering Co., Charlotte, N. C.
Spartan Sizing Compound Co., Spartanburg, S. C.
Stafford Co., The, Readville, Mass.
Staley Mfg. Co., A. E., Decatur, Ill.
Standard Electric Co., Richmond, Va.
Sydnor Pump & Well Co., Richmond, Va.
Steel Heddle Mfg. Co., Philadelphia, Pa.
Stein, Hall & Co., New York City.
Swan & Finch Co., 522 Fifth Ave., New York.
- U—
Tanner & Jones, Charlotte, N. C.
Terrell Machine Co., Charlotte, N. C.
Textile Mill Supply Co., Charlotte, N. C.
Thomas Grate Bar Co., Birmingham, Ala.
Threefoot Bros. & Co., Meridian, Miss.
- V—
Tolhurst Machine Works, Troy, N. Y.
Torrington Co., Torrington, Conn.
Tripod Paint Co., 67 N. Broad St., Atlanta, Ga.
- W—
United Chemical Products Corp., York & U. S. Bobbin & Shuttle Co., 57 Eddy St., Providence, R. I.
Colgate Sts., Jersey City, N. J.
U. S. Ring Traveler Co., Providence, R. I.
Universal Winding Co., Boston, Mass.
- X—
Vogel Co., Jos. A., Wilmington, Del.
- Y—
Wadsworth, Howland & Co., Boston.
Ward-Davidson Co., 2525 N. Second St., Philadelphia, Pa.
Wolf & Co., Jacques, Passaic, N. J.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Ridley Watts & Co., New York.
Winfield Bros., 25 Broad St., New York.
Whitin Machine Works, Whitinsville, Mass.
Whitinsville Spinning Ring Co., Whitinsville, Mass.
Whitman & San, Clarence, New York.
Wilkins & Gibson, Greenville, S. C.
Williams, Chauncey A., Manchester, N. H.
Wm. & York Wilson, Charlotte, N. C.
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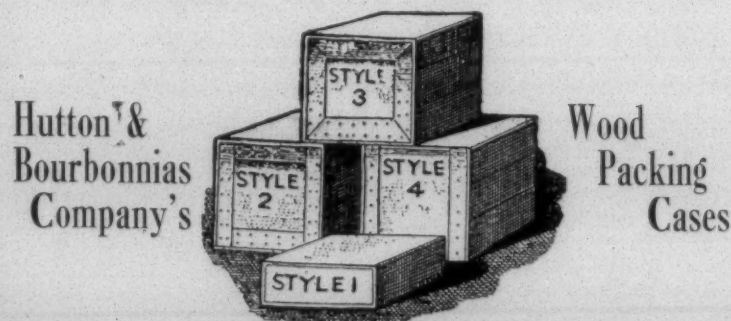
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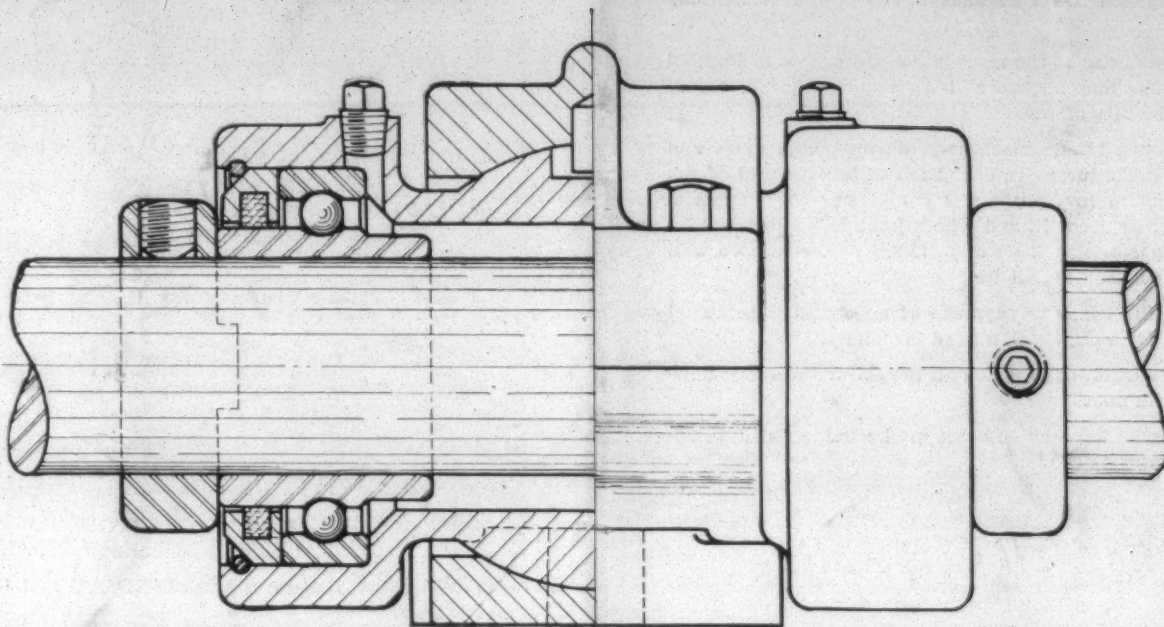


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